

THE *Country* GUIDE

In this Issue . . .

- Everything But Grass
- Farm Sewage Disposal
- Thriving Craft Center

CANADA'S NATIONAL RURAL MONTHLY



MAY 1961 — 15¢

FLOORS are going dress-up too!

Dressing up a room with touches of new colour is one way to express originality. Another is to use a smooth-surfaced, beautifully coloured flooring in a not so usual place — the living-room. Parade décor's big colours — the new purples and blues — on an urbane stage of muted beige, soft-sheen Dominion Linoleum. Elegant and original both. Then for a special fillip, add one of Dominion's custom-look "do-it-yourself" designs.



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THE *Country* GUIDE

Incorporating The Nor'-West Farmer and Farm and Home
CANADA'S NATIONAL RURAL MONTHLY

In This Issue

- NEW COLOR DESIGNS for our departments (Livestock, Soils and Crops, etc.) are introduced this month. We hope you find them attractive and that they make the farm practices easy to locate.

- EARLY CUT HAY is more palatable and nutritious than if it is left to full maturity, says forage specialist Doug Parks; and pasture champion Herb Watson (right) agrees.—See page 37.



- THE RAILWAYS AND FARM POLICY RESEARCH are the subjects of two special reports by Editor Lorne Hurd. They are on pages 7 and 11.

THE NOSTALGIC PAST moves into the living present in a heart-warming story of an old rocking chair. Read it on page 62.

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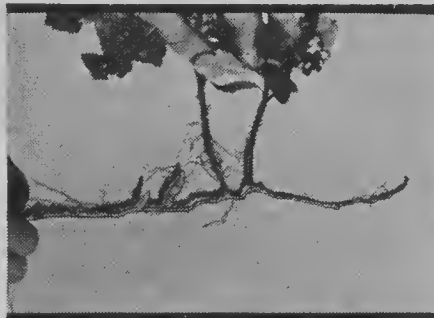
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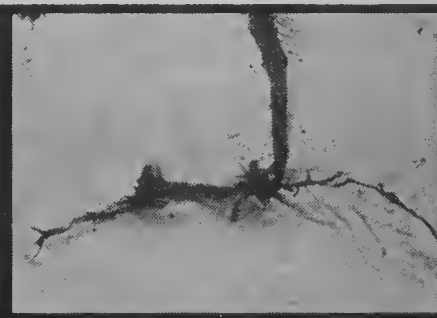
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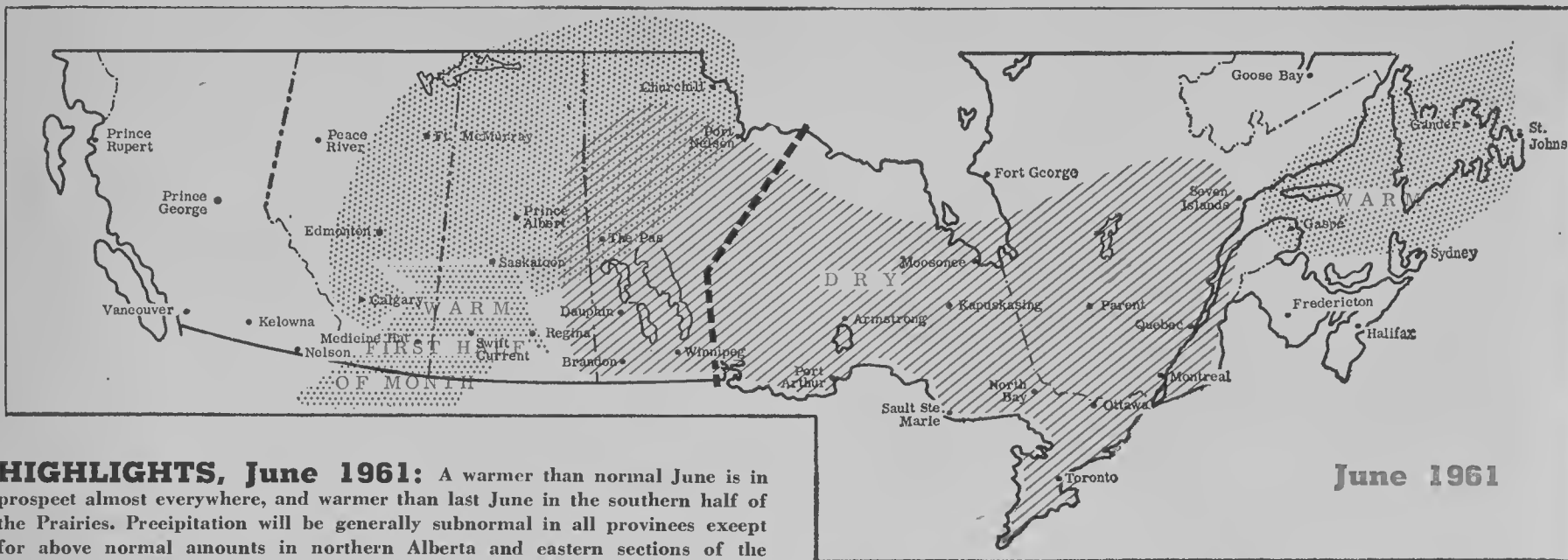
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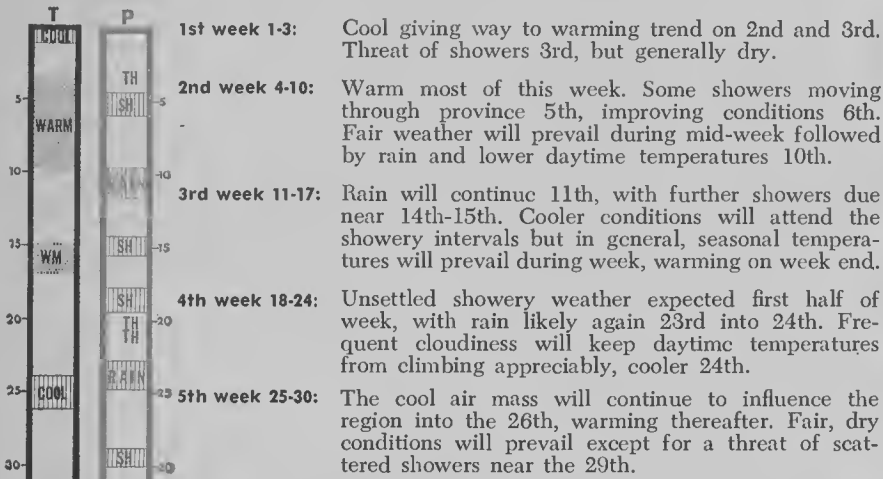
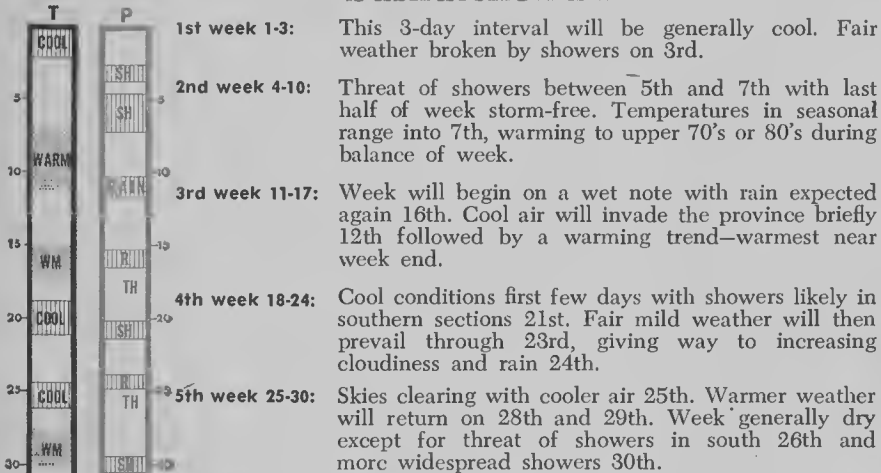
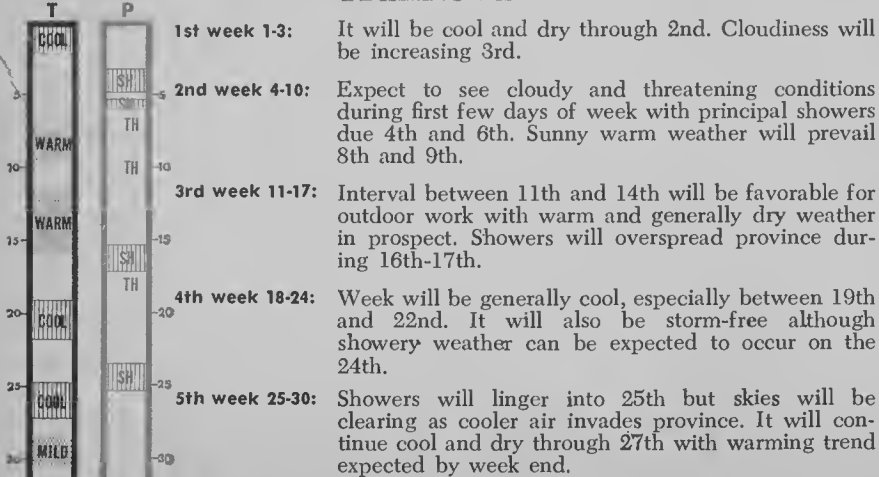
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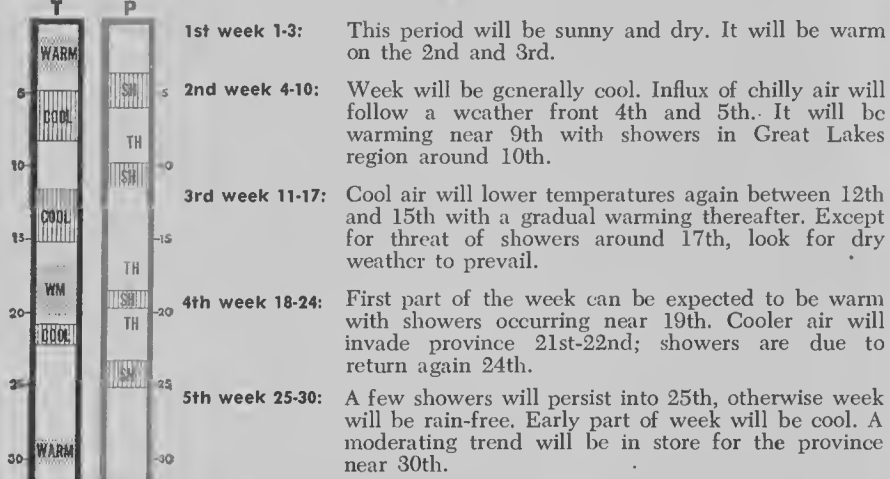
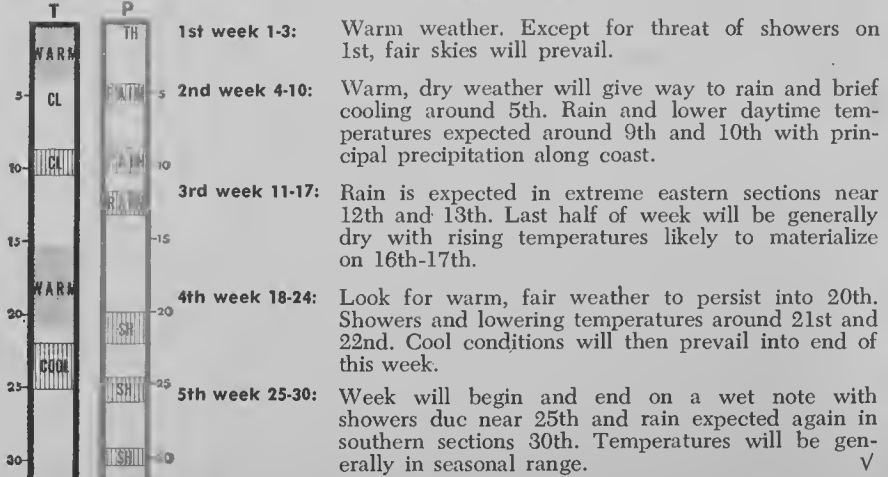
HIGHLIGHTS, June 1961: A warmer than normal June is in prospect almost everywhere, and warmer than last June in the southern half of the Prairies. Precipitation will be generally subnormal in all provinces except for above normal amounts in northern Alberta and eastern sections of the Atlantic Provinces—driest in southern Manitoba and western Ontario.

June 1961

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

Alberta**Saskatchewan****Manitoba**

TH=Threatening

Ontario**Quebec****Atlantic Provinces**

TH=Threatening

GUIDE POSTS

UP-TO-DATE
FARM MARKET
FORECASTS

WHEAT MOVEMENTS off your farm should step up sharply this month as exports unplug pipeline, but crop year-end farm stocks will not differ much from last year's. Durum wheat bins, however, are pretty well empty.

EXPORT MARKETS FOR OATS have practically dried up--less than a million bushels from start of crop year to early April. However, home market is quite stable and should absorb most of 1960 crop.

CANADIAN ECONOMY is slowly pulling out of its recent downturn, although unemployment problem will probably be with us for some time. Much of extra consumer spending will go to durable goods industries which had biggest cutbacks.

BARLEY EXPORT MARKETS are still in doldrums. While sales to China are a help, we have not had the hoped for increase in European buying, and more sales are needed if we are to even come close to matching last season's relatively low level by July 31.

LAST YEAR'S RECORD RAPESEED CROP is moving through market channels with hardly a hitch. Exports have been maintained at a steady pace and domestic users are becoming more interested in crop.

FLAXSEED PRICES are keeping in tune with quickening pace of North American economic activity and general strength of world fats and oils markets. Another strengthening factor will be increase of U.S. price support levels from \$2.38 to \$2.80.

RECENT RECESSION and unemployment problems show once again the need for more and better education to get along in modern Canada. Extra years of schooling are bound to pay you big dividends.

CENSUS TAKERS will soon be calling. While sometimes it may seem a waste of effort, data collected by census forms backbone of most studies on developments in agriculture, many of which reflect in Government policies to your benefit.

BUTTER PRODUCTION has been running well ahead of last season's as we enter period of heavy output from May to September. Margarine production is also increasing, which means that butter is still losing ground.

FED CATTLE PRICES have registered a small decline as marketings increase seasonally. But there is a lot of basic strength in market, part of which is probably supplied by relatively high pork prices.

5



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Editorials

Reforming the Railways

THE Royal Commission on Transportation was appointed nearly 2 years ago to inquire into the problems related to railway transport in Canada, and the possibilities of removing inequities in the freight rate structure. Volume I of its report, which is summarized on the facing page, was presented to Parliament last month, and is to be followed shortly by two additional volumes.

Before discussing the findings, we wish to make reference to three things. *First*, regardless of how the findings are received, Canada owes the commissioners, and particularly their distinguished chairman, Mr. M. A. MacPherson, Q.C., its deepest thanks. They have had to grapple with perhaps the most formidable set of domestic problems the nation has encountered since the end of the war. The task was onerous, and was carried out in all good conscience and at considerable personal sacrifice. *Second*, the methods by which it is proposed to resolve the transportation problems are of tremendous importance to us all. The Commission report, therefore, is deserving of thoughtful and searching examination. *Third*, by the time this issue reaches our readers, the Government may have taken action based, at least in part, on the first volume of the report. This is written without the knowledge of what action will be taken.

NOW, let us turn to the findings in Volume I. The Commission has clearly established that the railways' problems are much more fundamental and widespread than the statutory freight rates on grain alone, as the railways would have led the country and the Commission to believe. The railways estimated their annual losses in moving grain in 1958 to be \$70.5 million. The majority of the commissioners set them at \$6 million, and, in a minority report, Commissioner A. R. Gobeil said that, in his judgment, the cost studies brought before the Commission did not establish any loss whatsoever in handling grain.

The Commission has condemned the practice of applying the so-called horizontal freight rate increases unevenly across the rate structure as being inequitable, particularly to shippers in the Maritime and the Prairie Provinces, and self-defeating to the railways. Its contention that this practice must not be allowed to continue is welcome.

We also welcome the Commission's suggestion, contained in a footnote, that the productivity of labor on the railways and the efficiency of rail operations generally are fertile fields for special study. It suggests that the government's newly formed Productivity Council might be well advised to undertake such a study in the light of the importance to Canada's export trade of efficient rail operation. Frankly, the findings and recommendations of the Transportation Commission might have been different had it been permitted to pursue such a special study in conjunction with its other investigations. The absence of labor productivity and railway operating efficiency in the Commission's terms of reference was a serious omission.

THE Commission cannot be blamed, however, for not considering matters outside its terms of reference. But, in our judgment, certain findings of this first part of the Com-

mission's report are open to question. The underlying premise in the report seems to be that the railways can be profitable enterprises, if they are relieved of publicly imposed burdens and aided in their adjustment to the present highly competitive transportation environment. Two things about such a premise are dangerous.

The Commission has assumed that the two Canadian railways, competing with each other, as well as with other carriers, can be profitable. There is no reasoned argument in the report to prove the assumption. Expectation of operating profits was not of itself sufficient to bring our railway system into being, and a substantial part of it would have disappeared long ago if the government hadn't seen fit to take this part over and operate it at a loss in order to provide essential services. Vast private investments were made both in the U.K. and the U.S.A. in the hope of profit from railway operations. The British railways have been nationalized. In United States there are voluminous records of railway receivership, reorganization and of private capital lost. Surely, the Commission, in view of these facts, should have stated why it thought the railways, in a country as large and sparsely populated as ours, can be profitable.

This leads us automatically to the second weakness of the report. Why has the Commission completely ignored competition between railway lines? It is logical to believe that such competition divides a great deal of freight and passenger business between the two Canadian railways that could be more cheaply handled by one of them. Only in North America do competing railways continue to exist. Elsewhere in the world railways are monopolies of government. Is it not possible that continuing the competition between one privately owned railway and one publicly owned is as outdated as the uneconomic passenger and branch lines the Commission says so much about? Was there no part of the solution to the railways' problems to be found in reorganization of the plant and operations of the two railways, or at least co-operation between them, to avoid costly duplication of services that are needed to a much lesser extent than formerly? Surely, the Commission must have considered these questions, and if it did, why did it not give its findings with respect to them?

WE agree with the Commission that the time has arrived when a more exhaustive consideration must be given to railway branch line abandonment and a reduction in railway passenger services. Notwithstanding, issue must be taken with the extent to which it proposes this should be encouraged, and the time period in which it thinks it ought to take place.

The Commission implies that the railways ought to be encouraged to abandon all unprofitable branch lines (without defining what a branch line is) within a 15-year period, except where for reasons of national policy it is necessary to provide a level of service in certain areas regardless of commercial consideration. It suggests that on the two railways there is about 8,600 miles of track that should be considered for abandonment. We simply make these points. Anyone who has looked at a railway map of the Prairie Provinces, and tried to analyze what the effects could be if the rail-

ways closed as large a percentage of branch lines as the Commission suggests, could only conclude that they would be tremendous and strike a crippling blow to the economy of the West. Furthermore, is it reasonable to assume that each part of a given industry by itself can and must be operated at a profit or break-even point? There are few industries in which this is so. Surely, profits on lines where traffic is heavy more than offset losses on some lines where traffic is lighter. Are the railways going to be placed in a position where they are guaranteed high profits and relieved of all responsibility to provide public services?

In the case of railway passenger services, we are not unmindful of the inroads that have been made by airlines, bus lines and private passenger cars. Still, the sweeping Commission recommendation that all uneconomic passenger service must go in 5 years' time must be questioned. It should be recognized that railways are still the most dependable form of conveyance for large numbers of people traveling long distances, and railways for transporting armed forces in the event of war are probably indispensable in the foreseeable future.

From the standpoint of public welfare, the railway industry has both regional and national responsibilities. It is unthinkable to us that all of their public service obligations, of every kind and description, should be wiped out for commercial reasons alone. Reduction of operating facilities and services on branch lines and in the passenger field, and subsidies to assist in a transition period, appear necessary, but it is doubtful if such rationalization is in the best interests of the country as a whole if it proceeds as far and as fast as the Commission would have it. Moreover, any program of rationalization should include a program to encourage the railways to economize by eliminating wasteful competition and practices, and to co-operate in providing services.

OUR final point of issue has to do with the Commission's recommendation that a subsidy of some \$22 million or more be paid to the railways annually, to relieve the alleged burden in the transportation of grain at statutory rates. Our reasons are substantially the same as those presented by Commissioner A. R. Gobeil in his minority report, which is summarized at the end of the article on "The MacPherson Report" beginning on page 7. Suffice to make two points here. First, we have not been convinced that the grain rates occasion losses, and if indeed they do as the majority of the Commission claim, they will be taken care of by the proposed subsidy associated with light density lines. Second, we reject the Commission's proposal to place the statutory grain rates in a state of political uncertainty, and, thus in constant jeopardy, by calling for an annual review to determine variable costs, and a 5-year review in respect to constant costs, in order to establish the proper amount of subsidy.

SUMMARY

In summary then, our argument against this first report is based on these contentions. It is unrealistic to assume, without reason, that the railways either singly or in competition with one another can be profitable enterprises. It is undesirable to relieve the railways from any sense of public duty by guaranteeing them a profit or a break-even point on uneconomic segments of their business. It is inconceivable that all uneconomic railway passenger services and branch lines should be abandoned with so little reference to public feasibility and cost, and without any reference to the wasteful competition between railways. And, finally, it is not evident in the report that the Commission had before it conclusive statistical proof that the railways do, in fact, suffer losses under statutory grain rates.

The MacPherson Report

A summary of Volume I of the findings and recommendations of the Royal Commission on Transportation concerning Canada's railways

THE overriding message in Volume I of the 3-volume report of the MacPherson Royal Commission on Transportation, tabled in Parliament on April 10, is essentially this: *Burdens, which are the result of obligations imposed upon railways by tradition, law and public policy, and which are national in scope, must be lifted.* This, the Commission says, is basic to achieving any long-run solution to the problems which beset railways in Canada, and to the establishment of a greater degree of equity amongst the users of rail transport.

RAILWAY PROBLEM EXAMINED

On examining the basic forces at work in the transportation environment, the Commission found that it has changed gradually since the end of World War II. It has moved from a monopolistic environment, largely dominated by the railways, to one in which a number of modes of transport compete vigorously for the available traffic.

This change has come about as a result of: (a) new demands on the transportation system associated with Canada's rapid postwar industrial expansion; (b) striking technological advances in trucking, aviation, motor bus transport, and private motor cars; and (c), the building of extensive pipe lines and new and improved roads.

The Commission goes on to explain that while the railways were not standing idly by during this period of competitive growth in transportation, their ability to respond was inhibited by a steady postwar rise in labor and other internal costs; by their inability to adjust rates as readily as their competitors; and by federal regulations and public pressures which prevented them from reducing their railway plant and operations in line with their changing role in the industry.

The effect of this increasingly active competition has been a considerably expanded, more efficient, and more broadly based transportation industry in general, but one in which the railways have a declining role to play.

The result has been that the railways, caught between declining revenues and rising costs, have had to apply repeatedly for general, horizontal rate increases to meet their financial requirements. In fact, 12 such increases have been granted by the Board of Transport Commissioners since 1948, with a total level of permitted increase of 157 per cent. But, because of competition, the railways have only been able to obtain an average increase in revenues of 55 per cent. In other words, horizontal increases have been horizontal in name only. They have not applied evenly across the rate structure, but have been applied selectively by the railways according to what the traffic will bear.

As a consequence, the Commission contends, the regions where competition is weakest—the Atlantic and Western Provinces—are being called upon to pay a larger and larger share of the revenues to cover railway costs. Such a process, if allowed to continue, will be self-defeating. Either rates will become so high that captive traffic cannot move at all, or railway competitors will take over the traffic. In either case, the railways' financial position will be untenable.

The Commission does not believe this process must or should continue: "Our investigations have led us to conclude that the potential competitive power of the railways . . . is considerably greater than their actual performance in recent years . . . To unleash this potential is . . . the solution to the railways' financial dilemma, and, thus . . . the

solution to the freight rate inequity problem . . ."

The competitive position of the railways, the Commission claims, has been seriously weakened by the burdens they continue to carry as a legacy of the monopolistic period of the past. These burdens originate in part from public policy and in part from policies pursued by the railway industry. Hence, action is required at both the public policy level and on the part of railway management if the railways are to take their proper place in the transportation industry.



A pen sketch of Mr. M. A. MacPherson, Q.C., noted Regina lawyer who headed the study.

CONCLUSIONS AND QUALIFICATIONS

Conclusions for Public Policy. Based on the foregoing analysis, the Commission reached these general conclusions relative to public policy:

- Regulation of transportation should be minimized as much as possible, consistent with the protection of public interest. Regulations that are retained should bear equitably on all carriers.

- Rationalization of railway plant and operations should be actively encouraged by public policy. Where it is necessary to retain rail operations, such as unprofitable passenger or branch line services, the railways should be paid from public funds to cover deficits on such services.

- No form of transport should be singled out as an instrument of public policy, if a burden is involved, unless compensation is provided to that mode of transport to prevent distortions in the transportation market.

- Public assistance, through the transportation medium, which is designed to aid particular shippers or regions, should be recognized for what it is and not be disguised as a subsidy to the transportation industry.

Conclusions for Railway Management. The Commission concluded that the railways have been excessively preoccupied with the problem

of increasing revenues from their present traffic. What they should have been concentrating on is securing the kind of traffic for which they have an inherent cost advantage, and relinquishing traffic which might better be transported by other carriers. Railway resistance to the adoption of a more cost-orientated basis for rate making is essentially unrealistic, the Commission believes, and reflects a degree of railway rigidity which is not in step with today's transportation industry.

Qualifications. The Commission issues these two qualifications to its general conclusions. (1) It will be necessary, in order to avoid increasing inequities, to establish maximum rate control for a certain amount of traffic that will be dependent on the railways for some time to come. (2) A transitional period of several years will be necessary to implement the Commission's proposals.

BURDENS AND RECOMMENDATIONS

THE four specific areas of burden imposed on the railways by reason of tradition, law and public policy, and which the Commission finds are in need of relief, are: passenger-train service; light density lines; statutory grain rates; and statutory free transportation.

Passenger-Train Service. The Commission found the burden of passenger traffic deficits the most onerous of all. It believes there is little social justification and less economic, for the permanent provision of railway passenger services as we know them today. The Commission argues that the public has already indicated its preference for other modes of travel—airplane, bus and automobile—and has, therefore, no grounds for opposing the reduction of railway passenger service.

The Commission has recommended that an adjustment grant be paid out of public funds to the railways for each of the next 5 years on a declining scale, as set out in the table below. Such a subsidy is designed to lift the burden from the freight shipper and allow the railways to gradually withdraw uneconomic rail passenger services to reduce their deficits.

Year	CPR	CNR	Total
	(millions of dollars)		
1961	22.0	40.0	62.0
1962	17.6	32.0	49.6
1963	13.2	24.0	37.2
1964	8.8	16.0	24.8
1965	4.4	8.0	12.4

These amounts are intended to be the maximum grants for each year specified. The railways would be required to submit annual estimates of passenger deficits. The grants for any year would be the amounts shown in the table, or the actual deficits for the year, whichever are less.

Light Density Lines. Truck competition has been growing for a number of years, and the Commission believes it will continue to intensify. As it does, the ability of the railways to perform the function for which their branch lines were built will progressively deteriorate. The Commission concludes that the nation must now face the fact that the railway branch line network is no longer vital to either the well-being of branch-line communities or the larger society.

The Commission recognizes that considerable resistance has been directed against attempts by the railways to abandon lines. It suggests, however, that rather than the railway acting to bring about ruin to communities as charged, the communities, have, in fact, deserted the railway. Notwithstanding the Com- (Please turn to page 76)

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1. BIG UP FRONT—With the CASE 1000, you get a choice of 12', 14', 16' or 18' headers. You get fast, clean cutting with the 500 strokes-per-minute sickle. Big 20" auger operates at 100, 120 and 150 RPM.

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You bet! I'm interested in learning more about operating and servicing a combine—and hereby enroll in the CASE "College of Combine Knowledge". I understand I'm under no obligation whatever—and can become eligible to win a new CASE Combine on completion of these time-and-money-saving instructions.

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ABSORBINE



What's Happening

NO CHANGE IN DAIRY SUPPORT POLICY

Price support levels for Canada's dairy products will remain unchanged for the 12-month period commencing May 1, 1961, Agriculture Minister Alvin Hamilton has announced. Price supports for butter will remain at 64¢ per lb. for Canada First Grade. He also said Ontario cheese will continue to be supported at 32¢ per lb., and Quebec cheese at 31½¢. In addition, the Stabilization Board will continue to pay 25¢ per cwt. for whole milk delivered for manufacturing purposes, exclusive of milk from producers who sell a portion of their product in the fluid bottled milk market. V

UGG ISSUES STRONG PROTEST ON TRANSPORTATION REPORT

United Grain Growers Limited, through its president, J. E. Brownlee, Q.C., issued a protest to Prime Minister Diefenbaker against adoption of some recommendations of the Royal Commission on Transportation.

Mr. Brownlee indicated that UGG directors are deeply disappointed in the Commission's majority report. "We believe," he said, "that to implement certain recommendations will be bitterly resented in the Prairie Provinces, and will create divisive influences in Canada."

The United Grain Growers concedes that some temporary subsidy to the railways is evidently needed while they adjust their operations to the revolutionary forces at work in the transportation industry. "We do not quarrel with the surprisingly large total amount suggested," Mr. Brownlee said.

"What will chiefly arouse western resentment is the proposal to attribute to the carriage of grain, a subsidy of some \$22 million annually, and to describe this—not as a railway—but as an agricultural subsidy."

The UGG spokesman went on to point out that, in spite of conflicting expert testimony, the majority report presents a figure of \$2 million for Canadian Pacific and \$4 million for Canadian National as representing the short-fall in western grain revenue in 1958, as compared with directly related variable costs. In addition, the majority report would grant annually to Canadian Pacific \$9 million, and to Canadian National \$7.3 million, as a contribution from grain traffic to general overheads.

"Such a suggestion," Mr. Brownlee stated, "ignores completely the contribution to railway overhead costs made at the expense of the Prairie Provinces in past years. A vast portion of their natural resources of land, minerals, gas and oil were alienated in the national interest to insure building not only the CPR, but also lines now in the CNR system. The West thus paid amply in advance for all benefits later to be received from the statutory regulation of grain freight rates. That fact must not be forgotten, even if the majority of the Commission ignored it."

The statutory grain rates, the UGG protest also points out, would

be kept in a state of political uncertainty by the Commission's proposed annual review to determine variable costs, and a 5-year review of the contribution to overhead costs.

Turning to the Commission's encouragement for the abandonment of branch lines, UGG directors thought it "will strike dismay in many a western community as soon as its implications are realized. Acceptance of the report in this connection will constitute a continuing threat to practically the entire branch line system of Western Canada.

"It would have been sounder to encourage the railways to economize by eliminating wasteful competition, and to substitute co-operation in providing services," the protest concludes. V

NEWS HIGHLIGHTS

Ontario's beef producers hope to establish a voluntary system of contributions to improve their organization's activities and to develop an advertising program to increase beef consumption. Annual meeting delegates of the Ontario Beef Producers' Assoc. voted approval of a plan under which farmers could voluntarily contribute 10¢ to the Association for each head of cattle marketed.

Manitoba is to have colored margarine as a result of recent amendments to the Margarine Act which were passed by the Legislature in April by a vote of 42 to 12. The changes make it legal to manufacture and sell yellow-colored margarine in the province, provided the color is outside the range of 1.5-10.5 degrees as measured by the Lovibond Tintometer. In effect, the amendments mean colored margarine must be a deep yellow, nearly orange, or the manufacturer may be prosecuted.

Ontario poultry producers are anxious to get an egg marketing plan under way. They instructed the executive of the Ontario Poultry Producers Assoc. to circulate a petition asking for a vote on a marketing plan.

PFAA payments on the 1960 grain crop in Western Canada amounted to more than \$10 million. Average yields of less than 8 bu. per acre were officially recorded in 1,000 townships. Farmers in these areas received the majority of the payments. Over a 20-year period to the end of 1959, a total of \$243.2 million had been paid out to Western Canadian farmers under the Act, while only \$120.3 million had been collected by the 1 per cent levy which producers pay on sales of grain marketed.

Feed Grain Assistance Attacked. A 92-man committee of the Ontario Wheat Producers Marketing Board, at a recent meeting in Toronto, has recommended the removal of Federal Government freight assistance on western feed grains moving into Ontario. The Ontario group claim they spent \$500,000 to export their wheat to overseas markets, when it could have been consumed at home but for western wheat. V

Proposed Agricultural Economics Research Council Wins Support

Agricultural officials, who bear the responsibility for farm policy development, come to grips with a long-standing research need

by LORNE HURD

THERE is every reason to believe an independent, national, agricultural economics research council will be established in Canada within the next year. Its overall purpose will be to close, as rapidly as possible, significant gaps in research in many areas of agricultural economics and rural sociology, including new opportunities in farm resource management; farm marketing; rural life and welfare; and the impact on agriculture of developments in other sectors of the economy.

This conclusion is drawn from the widespread interest and support which was in evidence at, and the action which arose out of, the first National Conference on Farm Policy Research staged in Winnipeg, April 24 and 25.

The Conference, as has been previously reported, was initiated by the Minister of Agriculture for Manitoba, the Hon. George Hutton, on the simple premise that it was time to do something about the dearth of information upon which to base farm policy—a dearth that has been recognized for years. Organization and planning for the Conference were turned over to a widely representative National Steering Committee under the chairmanship of Dr. J. R. Weir, dean, Faculty of Agriculture, University of Manitoba, who also acted as Conference chairman.

AS the Conference got underway, it was apparent that interest in the event ran high. This was amply demonstrated when most of the top agricultural officials in the country showed up as delegates or observers.

In fact, the delegate body could hardly have been more representative. It included the federal and provincial ministers of agriculture and their deputies; senior officers and directors of the CFA, the NFU and the Co-operative Union of Canada; as well as a representative group from privately owned business and industry associated with agriculture. These people were joined by other delegates representing the Agricultural Institute of Canada, the Canadian Agricultural Economics Society, the Canadian Farm Writers Federation and the Canadian Association of Consumers.

The Conference was planned to accomplish these four objectives:

First, review the present state of agricultural economic and sociological research in Canada.

Second, outline current and prospective agricultural problems which require independent research.

Third, consider alternative methods that might be used to obtain this independent research, and select one of them as the best method of closing the research gap.

Fourth, assuming a new type of research organization is the preferred alternative method, consider how it should be administered and financed, and what degree of independence it should enjoy.

The first objective was carried out by Prof. Ralph Campbell of the Ontario Agricultural College, Guelph. Based on a survey he conducted at the request of the Conference Steering Committee, it was shown that: (a) serious research gaps exist in the fields of agricultural economics and rural sociology; (b) deficiencies exist in the regional distribution of our research dollars in these fields; (c) research personnel in these fields are not as highly trained as their colleagues in other lines of agricultural research; and (d) there is no drawing together of research results in agricultural economics and rural sociology, and no assessment of the gaps in such research which must be filled if a complete background is to be available to those who are making farm policy decisions.

Professor Campbell also pointed out that Canada spends about \$1.5 million for research in agricultural economics and rural sociology annually. This is in contrast to a total annual expenditure of some \$40 million for all other types of agricultural research.

A sub-committee of the Conference Steering Committee dealt with the second objective. Dr. W. C. Hopper, the sub-committee chairman, presented a detailed outline of suggested areas of economic and social research in agriculture which are most likely to require an independent organization to undertake them. He introduced 47 such needed areas of research under the following four classifications: (1) evaluation of existing and proposed agricultural policies; (2) effect on agriculture of government policies in other sectors of the economy; (3) policy implications of the social and institutional structure of agriculture; and (4) development of criteria and techniques for policy.

In a general discussion period which followed, support for the proposed, independent organization came from several key delegates, including the presidents of the CFA and the NFU, and the Federal Minister of Agriculture.

THE Conference then turned to objectives three and four. Members of the National Steering Committee outlined the Committee's recommendations, including their preferences for: (a) an independent council type of organizational structure; (b) broadly based endowment financing; and (c), an administrative body selected by the principals



Dr. J. R. Weir, chairman, National Conference on Farm Policy Research, who led the committee that planned event.

represented at the Conference. They also gave some indication of the magnitude of the finances that would be needed annually, which placed the minimum limit at \$300,000 and the maximum at \$900,000.

Dr. H. H. Hannam, president of the Canadian Federation of Agriculture, was then called upon to give a "summing up" statement, before delegates turned to resolutions.

EIGHT resolutions in all were brought before the Conference and were passed in amended form. It was significant that one or more of the ministers of agriculture present spoke in support of each of these resolutions. Here is the essence of what the Conference agreed to:

- There is a need for the establishment of an independent, national research organization to undertake, correlate, and assist in making funds available for a broad, continuing program of agricultural economics and social research.

- Consideration should be given to the establishment of a research council to meet this need, and that it be called: Agricultural Economics Research Council of Canada.

- The proposed council should be governed by a board composed of persons selected by the federal and provincial governments, universities, farm organizations and co-operatives, and other business and industry associated with agriculture.

- Proposed council be financed by broadly based contributions.

- An endowment fund would be the most desirable and effective method of financing the proposed council, because an assured source of funds would be a safeguard for independence and a prerequisite to the acquisition and development of a well-trained and permanent staff.

- Since further study of the detail of financing and organization of the proposed council is necessary before commitments can be made, a continuing committee consisting of the members of the National Steering Committee or their successors should prepare recommendations for organization, including a provisional board, and financing of the council, and that these recommendations should be presented to the principals of the Conference prior to July 15, 1961.

- The National Steering Committee employ a full-time executive-secretary to provide the necessary continuity in the development of the proposed council.

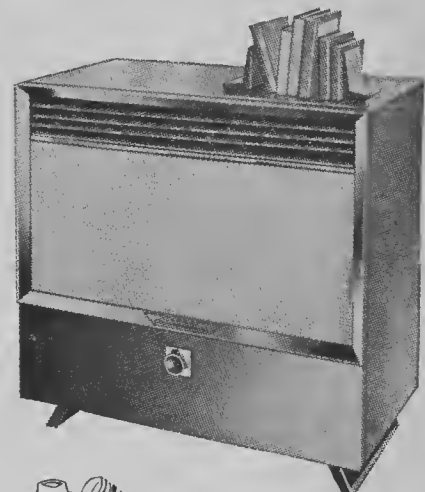


"What!

A space heater without a fan?"

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CONVECTIONAIRE you don't need one."



"How does the heat get out?"

"This unit is designed on the true convection principle. The heat flows naturally through these front louvers—right where you need it... at living level, not oway up of the ceiling like those old-fashioned models. Da you have o spoce heater now?"



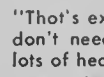
"Yes, and it does just that. Puts the heat everywhere but where we want it. And you should see the dirt on our ceiling."



"Hos the heoter ever let you down?"



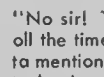
"It sure has! Every time there's a power breakdown we're uncomfortable."



"That's exctly whot I meon—you don't need electricity, no fan but lots of heat."



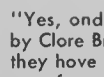
"It sure looks pretty nice. Does it get hot on the top?"



"No sir! The whole cabinet's cool all the time. Another feature I wont to mention is the location of the controls. Look, how safe they are... away from the kiddies."



"And you say it's available for gas, propane or oil."



"Yes, and furthermore it's backed by Clore Brothers of Preston... and they have been in the heating business for a long time."



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Low-feed OLIVER 40 handles bulky crops faster

Look at the *low and flat* feeder house on this Oliver 40. Grain is whisked straight from the auger into the cylinder—*low* in the combine body. There's no steep climb, no sharp breakover, no place where the crop can jam. Here's the *one* self-propelled that swallows the heaviest yields, the tallest and toughest weeds, without slugging or plugging.

You save more grain with the 40's king-size capacity. Behind the big-diameter cylinder are long-travel, 157-inch straw walkers that sift out *extra* bushels.

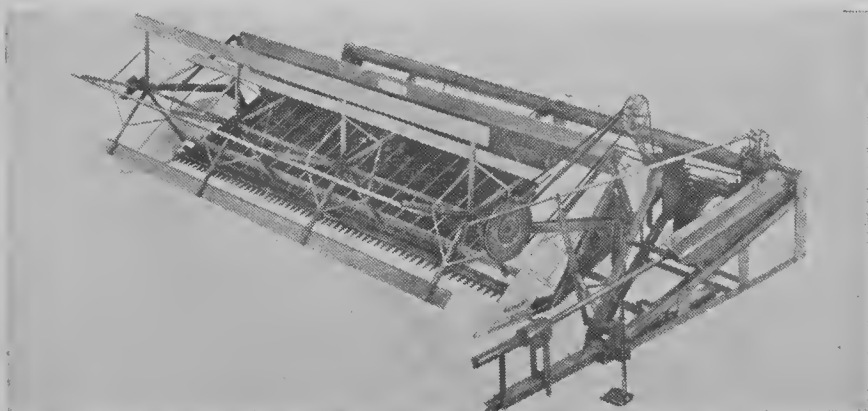
Below is the dual-action shoe that gets grain fanning-mill clean—independent, slow-shake, long-throw chaffer and vibrating, short-stroke sieve.

A brisk 6-cylinder engine (gasoline or diesel) gives you an abundance of *smooth* power. And it's mounted in the open at waist height to make servicing easy. Power, threshing and propelling units are mounted individually to a solid, one-piece main frame that withstands the strains and twists of rough going.

Here's the combine that gives you everything: live-

axle, 6-forward-gear tractor transmission with optional hydraulic, variable-speed drive...patented dual clutch for separate threshing and traction control...adjustable tread from 92 to 128 inches...57-bushel grain tank...double-disc brakes...and a wide choice of special equipment for special crops and conditions—from an all-season cab to power steering. There's no other self-propelled like an Oliver. See it before you buy any combine.

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We've Everything but Grass

*This specialist contends that forage crops on the Prairies,
if given an equal chance, will put more dollars in your pocket than grain will*

by M. R. KILCHER

Agronomist, Swift Current Experimental Farm

PRAIRIE farming in the West is well into the third generation. In the short span of 50 to 60 years, progress has been substantial. Much of the land has been brought under cultivation, a good road and highway system has been built, power machinery and equipment are now the farmer's tools, rural electrification is a reality, while phones, radios and TV are commonplace possessions.

When our forefathers first arrived they had none of these things, but they did have grass and lots of it. Now we have everything but grass. We even have nearly two million more cattle in the Prairie Provinces than we had only a short decade ago. If it weren't for wheat straw and the western farmer's ingenuity in scratching up some sort of feed, including the feeding of high priced grain, many of these cattle would starve to death. This may be a harsh statement and it does not apply to all farmers, but it's a safe bet that it sums up the situation for the majority.

We have been born and raised in a frontier land where nature abounded in grass for pasture and hay. This grassland is now gone to a large extent, and what does remain is too often overstocked, abused and is almost totally unproductive. We say that it isn't like the "good old days." Of course it isn't, because we can't eat our cake and have it too. Two generations of people have exploited the free gifts of nature. It now falls on the third generation to invest something in the land to assure themselves of a continuous return. As farmers we haven't done too badly in the grain enterprise, but we're away behind in the livestock field—except for the number we own.

For a long time we had the cart before the horse. We still have that arrangement except that now we are pushing the cart even further ahead of the horse. What are we talking about specifically? The shortage of seeded pastures and hayfields for the ever increasing numbers of cattle.

The ideal would have been to have the forage crop seeded before increasing herds. Failing this, it would have been desirable to acquire both the feed and the cattle together. As a last resort, it might still have been acceptable to provide the forage crop after obtaining the stock. However, not even this latter arrangement has been implemented by many of us. We are often the same people who gripe about the cost of feed and the lack of government community pastures. We hate to use so-called valuable wheat land to seed down a grass-alfalfa mixture for pasture or hay. The income lost during the year of establishing the forage crop suddenly becomes a big sacrifice. It took hundreds and thousands of years for nature to build up the soil and provide a good grass cover, but we are impatient because we have to leave the field alone for one year while we establish a forage crop many times better than nature ever did. There is something very wrong or inadequate with our thinking!

WHAT does a cultivated (tame species) forage crop mean? It is the difference between 300 to 500 lb. of native grass per acre in the open prairies and 1,000 to 2,000 lb. of feed from a seeded grass-alfalfa mixture.

There are several ways of measuring and comparing types of pastures and hayfields. The difference in annual yield is a good measure, but it may only be part of the story. Other important considerations are length of grazing use, quality of feed, comparable acres required, animal gain (both rate of gain and total gain) and, of course, the economic comparison in the long run which is the common denominator best understood by everyone. Let's take a look at each of these considerations.

Length of Grazing Season. Native pastures, even those in fairly good shape, do not provide adequate fodder until about June. They are usually grazed before this time, but only to the detriment of the summertime carrying capacity. On the other hand, some of the tame grasses can be chosen for a spring pasture which will provide adequate early grazing through May. Crested wheatgrass can be used heavily during these first weeks of spring, thereby giving the main summer pasture fields a little time to get a good start.

On the other end of the season, an additional month or two of good grazing can be obtained by the wise choice of Russian wild ryegrass. This grass cures excellently and retains a high protein content into the winter.

What does this amount to? If properly managed, the use of tame forages can extend the productive pasture season by 2 months.

Quality of Feed. For pasture or hay, it would be a mistake to seed any cultivated grass without including alfalfa to provide a high quality and productive mixture. In most prairie areas the mixture will outyield grass by itself by 2 to 1. In other prairie areas we know that this difference will be



The author calls this "A Nothing Pasture"—no grass, no grazing, no animal weight-gains, no returns — just sage and more sage.



Baled wheat straw may make good bedding, but it is very poor livestock feed.



A pot-hole, such as this one, is a typical but generally a poor source of hay.



A severely overgrazed native pasture that was grazed at the rate of 20 acres per cow. Even the sagebrush has been chewed off some.

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See your nearest WESTEEL DEALER for more particulars as to colour, designs and prices, etc., or write to the office nearest you.



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3 to 1 or even 4 to 1. Consideration of quality gives the grass-alfalfa mixture an even greater advantage. Protein, vitamins and mineral contents of alfalfa are much higher than those of grass except during the first spring growth. Rambler alfalfa will withstand grazing whereas other varieties will tend to go out.

Improved feed quality of a grass-alfalfa mixture over that of grass alone will be directly reflected in the rate and amount of animal gain and degree of finish. The mixture is especially advantageous for the hayfield where danger of bloat cannot be a possibility. In pastures, a mixture is equally as advantageous from the standpoint of quality and quantity, but bloat is a possibility.

Acres Required. Carrying capacity is a measurable factor. Large acreages in low-producing hay or pasture fields is costly. Many native pastures on brown soils will only carry one head of cattle for every 20 to 30 acres. In the dark brown and black soil zones this is reduced to 10 and 5 acres, providing the brush or bush isn't too heavy. On many badly overgrazed native pastures even the above acreages are not nearly sufficient.

In contrast, a tame grass-alfalfa mixture should do at least 3 times and up to 5 times better than the native grass.

The same relationship will of course hold for hay. Whereas many farmers rely on the "prairie wool" take and the odd pot-hole or slough-bottom for feed, they could be and should be making top quality hay from a seeded mixture closer to home.

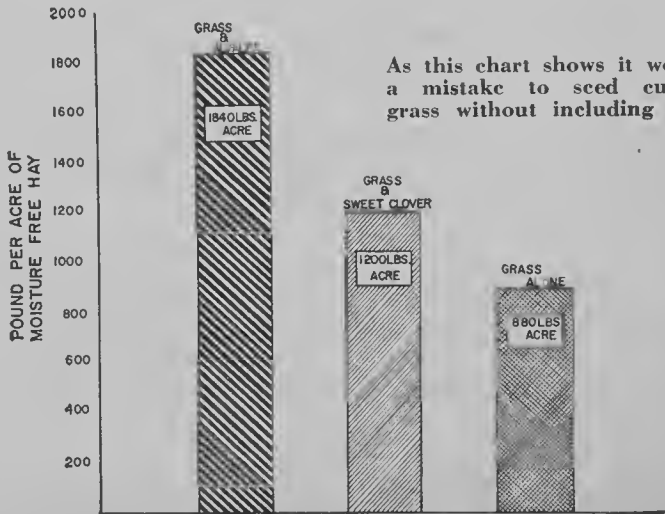
Animal Gain. The 2-pound per day rate of gain is achieved by many stockmen who feed straw or coarse hay, but this is only the roughage part of the diet. They are really getting the gains from the grain that goes with the roughage. Is it not more reasonable to feed better hay (which costs no more to produce than poor hay) and go easier on the grain to get the 2-pound rate of gain? This comparison is even more easy to acquire as pasture, especially if you calculate the rate of total gain on a per acre basis. Cattle on good native pasture at Swift Current, for instance, show a meat production of about 11 pounds per acre per season, while a standard dryland grass-alfalfa mixture will give about 35 to 40 pounds of meat per acre.

Economic Comparisons. Quite apart from the economic differences between types of pasture and types of hayfields as measured through production, quality, acres and animal gain, what is the comparison between forage and grain?

We westerners are a group of people who hate to use "wheatland" for anything else except grain production. Somehow or other we are branded with the stigma that good land is for wheat while the poorest stuff ought to be seeded to forage crops. This perpetuates the belief that dollars come from wheat while only hard work comes from forage crops. The difference isn't really between the two crop types as much as it is between soil types. If forage crops are given an equal chance with wheat they'll wind up bringing you more dollars than the grain.

Again at Swift Current (which isn't considered a good forage area, but is a 20-bushel wheat area) a 10-year test revealed these interesting comparisons. Grass-alfalfa hay seeded once gave an average annual hay yield during the period 1951-1960 of 1 ton per acre. Wheat on summerfallow in the same test gave an average annual yield of 25 bushels, and oats on summerfallow gave 64 bushels. To be fair, we must cut these grain yields in half since they were on summerfallow land in a 2-year rotation. So the yields really become 1 ton of grass-alfalfa hay, 13 bushels of wheat and 32 bushels of oats per acre. If we consider the hay at \$18.50 a ton, the wheat at \$1.35 a bushel and oats at 54¢, we come up with the following per acre gross crop values: hay \$18.50, wheat \$17.55 and oats \$17.30. Furthermore, we think that there will be general agreement that the cost of producing the grain will be much higher than the cost of producing the hay. The grain production involved the cost of summerfallowing, annual seeding and harvesting, storage, and quota problems.

It's hard to believe that the three Prairie Provinces haven't as many acres seeded to tame hay as they have head of cattle, and this doesn't include other livestock. We've come a little way since the 1930's but not very far. According to the D.B.S. there was one-quarter acre of tame hay for every head of cattle in the '30's. In the '40's it was one-half acre and in the '50's three-fifths acre. Now it is two-thirds. We won't come near a proper relationship until we have at least tripled this acreage. ✓



As this chart shows it would be a mistake to seed cultivated grass without including alfalfa.

After the third year, MacDonald prunes every tree every summer, so that each will be a nearly-perfect, dense, green pyramid.

Christmas Trees -

A cash crop that takes management

by **DON BARON**

WHEN the craze to grow Christmas trees was at its height a few years back, it seemed there were people just waiting to buy every sandy field that fell idle. Their purpose was to plant pine trees with the thought of making easy money. Most of them were real opportunists. They sat back with their feet up waiting for the trees to mature, and the profits to roll in. Most of them are still waiting, ready to admit the bloom has rubbed off their dream.

According to tree farmer Jim MacDonald, the reason is simple. "Growing Christmas trees is no more of a get-rich-quick scheme than any other legitimate business. It's as much of a challenge as growing a 100-bushel crop of corn, or finishing a market-topping load of steers. It takes the same kind of planning and careful attention. The person who plants his trees and forgets them will never have trees worth selling."

MacDonald believes one of the biggest threats overhanging the Christmas tree business today is the number of uncared for trees in the country. Buyers don't want them. Poor trees can glut the market and ruin prices.

But in the long run, he believes Christmas trees can still be one of the best crops to grow. It's a luxury crop. People crave quality trees at Christmas time, and are willing to pay \$4 to \$6 each for them on a market like Chicago. The grower who looks after his trees in the plantation, might sell them off the farm for \$1 to \$1.50 each. At 1,200 trees per acre, that's a good return for the 7 to 9 years it takes to grow them.

TO see how MacDonald grows his trees, we visited him at his northern Ontario farm — a 200-acre tract he bought 10 years ago. His property is typical of thousands of acres of land that have been turned back to trees and woods in recent years. It is land that was farmed at one time, but without success. It was allowed to revert to rough pasture, and then finally to brush. MacDonald has taken this land and turned it into one of the best tree farms in Ontario.

Tree farming isn't a full time occupation for MacDonald yet. In fact, it's more of a hobby

than anything. For although he grew up in the Thessalon community, he turned to school teaching as a young man, later decided that the indoor life of books and blackboards was not for him. He joined the Federal Government's insect survey unit at Sault Ste. Marie. Ten years ago, he turned to Christmas tree farming in his spare time.

His property is more than a farm—it's virtually a retreat. Sheltered deep among the sentry-like rows of trees, and nestling against a trout-filled pond, is his cottage. He recently completed the laborious job of damming a stream to form the pond and added a spillway and water wheel. Now, when Jim, his wife, and daughter Judy are there for holidays and week ends, it's a recreation spot as well as a place to work.

JIM looks after his trees. First he showed us how important it is to prune the trees regularly. We walked to one corner of the farm where a few unpruned pines were growing. They were skeletons—3 or 4 feet taller than the ones of similar age that had been pruned. They were bare in the center, devoid of branches, and rough in shape. No wonder buyers wouldn't want them.

The Scotch pine is "one of the most popular trees today," Jim explained. "The challenge facing any grower is to start with a good tree, and grow it into a near-perfect specimen."

"A good Scotch pine," he added, "will have a blue-green color, needles about 2½ inches long, and branches that sweep upward at a 45 degree angle. Then, it must be properly pruned."

"How do you prune a tree for best results?" we asked.

"Prune in summer when the shoots are well grown, but still soft enough that the new buds will have plenty of time to develop before winter. You must prune every tree every summer from its third year until it is sold at 7 to 9 years. Clip the leading shoot back to 12 inches and the side shoots to 6 inches. Then, twice as many new buds



Here, MacDonald collects seed for his nursery from a specially selected Scotch pine.

will form at the tips of each shoot for next year's growth. Growth will be more compact, resulting in a bushier tree."

TREE management actually begins in the springtime — in April and early May in northern Ontario. That's when planting is done. MacDonald says the first step in laying out a plantation is to plan a network of roads for fire protection. Then, with a mechanical planter, you can put in about 8,000 trees per day. April and early May is also the time to spray for weevil. A knapsack sprayer is fine for this job, for it's only the growing tips that must be sprayed. July is pruning time. Then, during the rest of the summer and early fall, Jim spends his time walking through the plantations that are near market age, tagging the trees that are to be cut in November.

Selling by grade is important in MacDonald's program. He uses the U.S. grading system, and markets only the two top grades—Select, and No. 1 trees. A Select is an almost perfect tree around its full circumference, without holes or flaws. A No. 1 has 3 perfect sides. Export trees are usually sold at a flat rate, and any load will include various sizes.

To assure buyers they will get undamaged trees, MacDonald has begun tying all his trees before shipping them. This is a 3-man operation that costs him about 10 cents per tree.

MacDonald is more than a Christmas tree grower. He is a student of forestry. And since he believes Christmas trees are a soil-depleting crop, he has decided two consecutive crops is all he can safely take off any field. As a result, he interplants red pines among some stands of Christmas trees. These are planted after the Christmas trees are well established so their rapid, unpruned growth won't smother out the Christmas trees. Once the Scotch pines are removed, he will let the red pines grow on, and will add other trees like poplars, to the plantation.

This is part of his long term woodlot program—a surprising kind of program, for it will be about 80 years before such woods give their ultimate harvest of saw logs.

"And don't forget," he adds, "the fun of establishing and managing plantations is part of the return to anyone who loves to grow things." V



Christmas trees are pulled through this hoop and tied to prevent branches being broken in shipment.

Farm Sewage

The best time to install your septic tank system is from May to August. Here's an outline of what this job will entail

THE thump and hum of automatic water systems is sounding the death knell of another fine old rural institution—the outdoor privy. Long the despair of farm housewives, these outposts of the mail order catalog people are fast being replaced by modern fixtures of gleaming porcelain and chrome.

Unfortunately, most farmers can't connect their homes to a trunk sewer like their city cousins, but must build a sewage disposal unit of their own. A little care in the placing and construction of this unit can save a good deal of trouble later on.

One thing to keep in mind is that domestic sewage is over 99 per cent water. This means your main problem is getting rid of large amounts of contaminated liquid in such a way that it won't endanger wells or other drinking water sources. One thing you must *not* do is let it run directly onto the ground, or into an abandoned well.

The most common method of disposal in rural areas is via a septic tank. This is combined with either a subsurface drain field, a seepage pit or a tight concrete vault. Of these, the subsurface drain field is the cheapest in labor and material. It's also the most satisfactory way of disposing of septic tank waste.

Remember, your tank *won't* purify this waste. It merely provides a means of storing and digesting certain solids, and reducing others so they can be pumped or absorbed into the soil. Waste from your tank must be thought of as untreated sewage, capable of spreading diseases such as typhoid, paratyphoid, dysentery and other intestinal ailments.

A septic tank is generally located close to the house. A long connecting line is liable to freeze in winter. But it should be at least 3 to 4



Technical assistance is provided for farmers, Ag. engineer Cam Kirk is explaining the septic tank to an Alberta group.



Farmer Doug Jones (r.) and friends complete excavation for the tank.

feet from the basement wall to prevent a too-rigid connection which might break if the house or tank shifted. *Never* make a basement wall part of your septic tank, or locate the tank in the basement, or under your house. The tank site should be free of flooding and easily accessible so the unit can be cleaned or inspected (every 2 or 3 years).

As far as the tank's location in relation to the farm water source is concerned, regulations governing this may vary from province to province. In general, it shouldn't be placed within 10 feet of a cistern or 50 feet of a well because of the danger of tank leakage.

When it comes to choosing a tank, your best bet is a reinforced concrete unit. Steel tanks aren't recommended for permanent installations for two reasons: (1) They corrode rapidly, especially in some western soils, and (2) they're often too small for good operation. Remember, the tank is a permanent part of your plumbing system, and should be big enough to handle the largest number of people who'll possibly use it. A big tank works well with a few people using it, but a small tank will soon ruin a disposal field if used

beyond capacity. A recommended size for six persons is a tank with a minimum capacity of 450 imperial gallons in the first chamber, below the flow line. For a regular dwelling, you should allow 35 imperial gallons per person, plus 6 cubic feet per person for sludge storage.

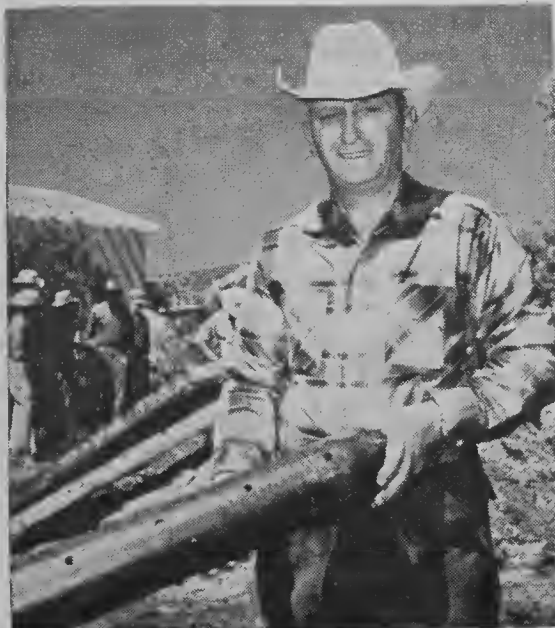
A steel tank will do if you're only looking for a temporary installation. In that case, it should be a horizontal type (at least 5 feet deep and 10 to 15 ft. long) with a minimum capacity of 400 gallons. The material should be 12-gauge copper-bearing steel, painted with black asphaltum, or a similar anti-corrosion coating. Before buying, look for a stamped metal plate bearing the manufacturer's name, capacity of tank and gauge of metal.

YOUR reinforced concrete tank should be watertight, and have a removable plank or concrete cover. Pressure-treated, rough 3-inch planks make a good cover which can be easily lifted. *Don't* put a small manhole on top of your unit. Gases formed in a septic tank are poisonous, and include carbon monoxide which is also odorless. When you have to clean it, you'll want a big enough opening to allow a good supply of air in. (To be safe, you should leave it open about 6 hours before going in to clean it.)

Proper placing of the vertical inlet pipe which carries sewage down into the tank is essential here. It should be 3 inches above the outlet to aid the escape of these gases. The outlet should be submerged to keep scum and other solids from passing into the drain field. *Never* vent your tank. It would make it more susceptible to freezing. Venting will be adequately done through the stack above your bathroom.

The digestion process in the tank will "start" itself because human waste has a high bacteria content. Chemical starters such as yeast aren't needed. The action is a slow one—very difficult to speed up but almost impossible to stop. However, this starting period won't be so long that your tank will plug up in the meantime, providing you've built the latter large enough in the first place.

Experience has shown that a dosing siphon is a vital part of a septic tank installation, especially where there's a shallow drain field. Only if the



Charlie Jones holds up perforated plastic pipe to be laid in his son's sewage disposal field.



One of the details that cannot be overlooked: caulking the pipes before they are installed.

Disposal

by CLIFF FAULKNER



Plastic cover holds dirt on bank; a plywood guard keeps cement from spilling into tank.



All hands join in pouring the cement for the septic tank. Ready-made forms are on loan from the municipal district.



Neighbors have a chance to inspect the sewage disposal field before it is covered up. [Gulde photos]

tank is below frost line and the waste flows into a seepage pit or concrete vault is a siphon considered unnecessary. The usual siphon has a bell-shaped cast iron fitting which is inverted over the top of a vertical pipe. This "bell" doesn't move at any time, even when the siphon is in operation. Your siphon chamber should also be made so it can be inspected at regular intervals. If large solids, such as paper, are found in this section, it's a sign your main tank needs to be cleaned out. Solids escaping into the siphon chamber will pass out into your disposal field and plug it up.

THE type of soil on your farm will decide both the depth for your septic tank and field, and the size of your disposal field. In a clay soil which doesn't absorb water readily, your drain field should be only 18 to 24 inches below the surface. This means the top of your septic tank will be exposed for it must be 36 inches above the top of the outlet pipe which runs from the siphon chamber to the drain field. In such cases, it's common practice to put a mound of earth over the tank. *Don't* try to put a deep drain field in a clay soil.

A heavy loam underlaid by sand should need a drainage area of 1,500 square feet, containing about 200 ft. of "weeping" tile — either the unglazed clay or perforated plastic type. This would consist of a center line of glazed or unperforated plastic tile connecting eight 25-foot laterals (weeping tile) spaced 10 ft. apart. The field pipe should lie nearly flat with a slope of about 2-4 inches per 100 ft. Laterals should be dug 2 inches deeper than the main line, and be at least 18 inches wide. They should have gravel packed around the sides, and to a depth of 4 inches underneath. Topping should be of black dirt or clay, preferably mixed with rotted manure or peat.

If there is danger of overflow, a small leaching cesspool which can be easily pumped out can be located at the field's end. This is a good safety factor. It should be cribbed with building blocks or treated planks, and have a decay-proof top with an access pipe installed.

In very cold climates, a leaching pit or a series of them, might have to substitute for a tile disposal field. To guard against freezing, keep a

snow cover over your field—either by a snow fence, or by locating it on the south side of trees so the snow will bank up over it. The trees will also help absorb moisture. In any case, keep your field well away from roadways or other packed soil conditions.

IT'S not a good idea to put a septic tank system in operation after the ground has begun to freeze. Best time to install your unit is from May to August. If you have to start one in the fall, pass large quantities of hot water through it for the first few weeks.

Your septic tank will handle ordinary kitchen wastes without any trouble, but you should avoid putting too much grease into it. Although detergents and wetting agents might slow the digestive process a little, when used in moderation they won't cause a great deal of harm. The occasional use of a drain cleaner is all right too, but wash water from a zeolite water softener should *never* be put through a septic tank.

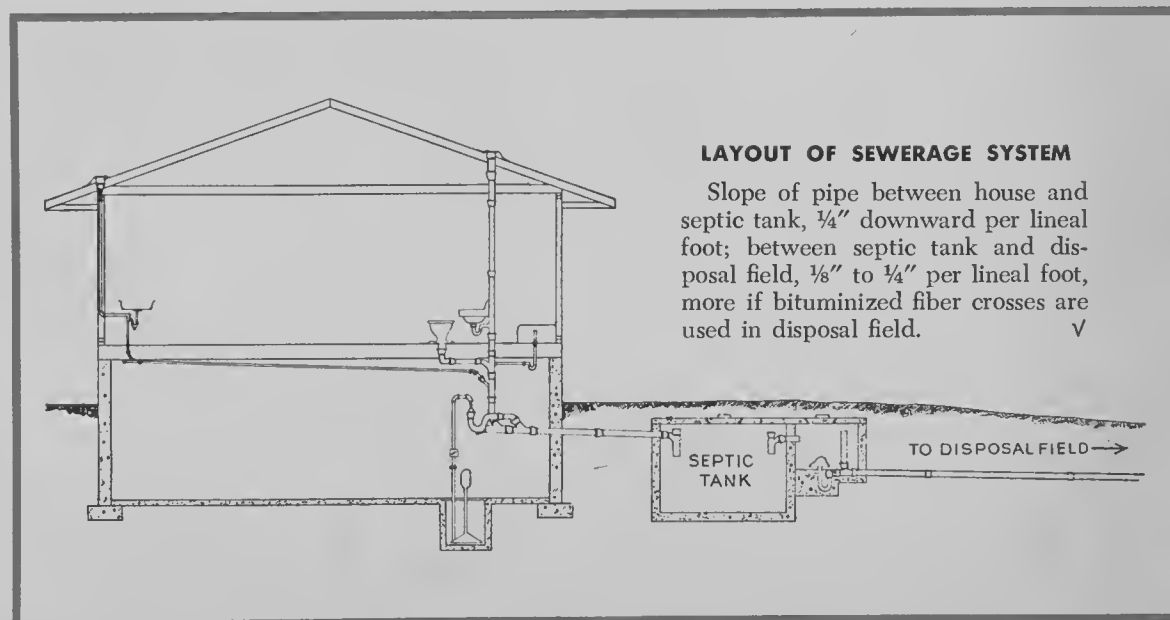
As far as planning, or even financing, your farm sewage system is concerned, you don't have

to "go it alone." Technical help is available from the departments of agriculture and universities—and it's free.

In Alberta, the agricultural engineering branch has assisted with 500 sewage systems in 4 years, using ready-made septic tank forms supplied by the various municipal districts. Saskatchewan's Family Farm Improvement Branch administers a program of technical help, loans, grants, and bulk purchase of some materials for farmers installing sewer and water. In Manitoba, if 15 or more farms in an ag. rep. district are interested, the Department of Agriculture draws up a system and list of materials for each farm, and then gives a short course in the area to show how it is done.

Booklets can be obtained from federal agencies, such as the Canada Department of Agriculture, the Department of National Health and Welfare, and the Central Mortgage and Housing Corporation. Financing is available through Farm and Home Improvement loans.

Given all these advantages, there's no excuse today for a badly planned farm sewage disposal system. V



A New Rust-Resistant Feed Barley



[C.D.A. photos]

This plot of the new Keystone barley shows its good strength of straw and erect growth.

Keystone

by W. H. JOHNSTON
and D. R. METCALFE

Brandon Experimental Farm



Metcalfe (l.) and Johnston examine a Russian variety used as source of smut resistance.

THERE is good news for farmers who have been troubled with loose smut in their barley crops. The Canada Department of Agriculture has announced recently the licensing of a new six-rowed, smooth-awned, feed type barley named Keystone. It has complete resistance to the races of loose smut present in Canada and United States. The variety originated at the Experimental Farm, Brandon, Man., from a system of crosses—(Jet x Vantage) x Vantmore²—and is the fifth in a series of barley varieties developed by plant breeders at the institution.

The Experimental Farm, Brandon, has long been recognized as an important barley improvement center. The first variety to be released was Plush in 1939. It found wide acceptance in Manitoba and Saskatchewan as a high yielding feed variety with shattering resistance. The variety, Vantage, followed in 1947 to meet the need for a rust resistant feed type. In 1954, a third feed variety named Vantmore was distributed in Manitoba and eastern Saskatchewan as a replacement for Vantage because of superior resistance to root-rot and the foliage diseases. Finally, in 1956, after many years of research, the Brandon Farm brought out Parkland, a rust resistant variety of good malting quality capable of out-yielding O.A.C.₂₁ and Montcalm under a wide range of conditions. Parkland is now widely grown in Manitoba and Saskatchewan and in many areas of Alberta.

The latest member of the Brandon family of

barleys, Keystone, came about as a result of team effort involving plant breeders, plant pathologists and chemists. The research work leading to its development was part of an overall program of a barley project group organized in 1949 to develop disease-resistant varieties for the eastern Prairies. The loose smut disease has always been recognized as responsible for significant losses in the barley crop and it was only natural that the disease would receive priority in the breeding program. Since 1954, smut investigations have been largely centered at the Experimental Farm, Brandon.

The original cross leading to the development of Keystone was Vantage x Jet, made in 1949. Vantage was selected as a parent because of high yield, strong straw and resistance to stem rust. Jet had a high degree of resistance to the loose smut disease although its yield and agronomic characteristics left much to be desired. In 1952, a family was found among the progeny of this cross from which it was possible to select plants possessing the desirable features of both parents. A number of these were back-crossed twice to Vantmore giving the cross from which Keystone was eventually selected.

The results of the 4 years' testing in experimental plots throughout Western Canada show Keystone to be a high yielding variety. It has done particularly well in the black soil zones of Manitoba and eastern Saskatchewan where it has exceeded in yield such commonly grown vari-

eties as Husky, Parkland, Vantmore and Montcalm. In the western Prairies, it has compared favorably with Parkland, but not quite the equal of Husky.

Keystone has medium-late maturity being intermediate between Husky and Parkland in this respect. The straw may be classed as strong. It has shown less lodging than most presently recommended varieties. The heads resist shattering and are carried erect on sturdy necks. Both the kernel and bushel weights are satisfactory.

Keystone has been included in quality tests and shown to be unsuitable for malting purposes.

AS well as being highly resistant or possibly immune to loose smut, Keystone has shown high resistance to stem rust, covered smut and bacterial streak, as well as moderate resistance to spot blotch and scald. It is susceptible to net blotch, septoria leaf blotch, mildew and false loose smut.

The distribution policy agreed upon did not involve sale of seed to farmers at large. Approximately 1,300 bushels of seed were made available to elite seed growers in Manitoba and in that part of Saskatchewan east of the third meridian. It was also agreed that if there were not sufficient elite growers to take up the supply, then registered growers would be selected. The growers to receive seed were selected by a special committee set up in each province for that purpose. There was also a limited quantity of breeders' stock distributed.

It was felt that the distribution plan, as outlined, would provide sufficient seed to meet normal demands in 1962, and subsequent years. V



Smut spores in water are injected under pressure into the floral parts as the plants are heading. This is to test the barley for smut resistance.

Production Control In Agriculture

WHO ?

Part I: Last month, Dr. Gilson discussed the need for production control. He said agriculture's dilemma was that if price supports were high enough to come to grips with the price-cost squeeze, there was an incentive to create unwieldy surpluses. If price supports were at non-incentive levels, or where demand and supply were in balance, there appeared to be no adequate redress against declining income. In his opinion, some degree of production control was inevitable if farmers continued to press for price supports above the level at which available supplies could be cleared by the market.

Dr. Gilson said there were three principal methods of increasing farm prices and incomes: by expanding demand, by direct price and income payments, and by supply reduction and production control. Few would disagree that every attempt should be made to expand domestic and export demand for farm products. But if surpluses and low farm incomes continued after everything possible had been done to expand the market, consideration must be given to the domestic aspects of farm policy. It was at that point that production control might have a role to play. This month, Dr. Gilson examines the question of who should control farm production.

by J. C. GILSON

*Department of Agricultural
Economics, University of
Manitoba*

Part II

DESPITE the great differences which distinguish the wheat farmer at Rosetown, Sask., from the beef producer in Bruce County, Ont., they have one important thing in common: Both are small operators relative to the total agricultural industry, and neither as individuals can appreciably influence the market price for his product. For similar reasons, the largest poultry producer in British Columbia could quit the egg business tomorrow and it would not matter one iota to most Canadian food consumers.

This may not be a flattering picture for the individual producer, but it is the essence of free competition in Canadian agriculture.

In much of the non-farm sector of the economy, however, small-scale competition has been gradually replaced with the negotiated pricing of large-scale corporations and the collective bargaining of powerful labor unions. Supermarkets, giant factories, national organizations and labor unions are here to stay; there can be no doubt about that.

Canadian farmers have never been content as an industry of small-scale competitors. In the attempt to overcome their competitive disadvantage in the market place, and to gain somewhat greater control over their own industry, farmers have resorted to three basic strategies: Dissolution of their opponents' power through regulatory government legislation; collective action through co-operatives and producer marketing boards; and direct government intervention in the market place on behalf of farmers.

It appears almost certain that Canadian farmers are headed for a greater degree of control in their industry. Who controls agriculture, however, is one of the most important issues facing farmers at the present time. It is to this question that we will address ourselves in this article.

DISSOLUTION OF OPPONENTS' POWER

FOR a long time—perhaps it is still the case—the majority of Canadian farmers clung to the idea that the solution to their difficulties would be found by restoring atomistic, or small-scale, competition in the industries from whom they bought, and to whom they sold. They believed that the best protection from monopolistic power was to find methods of dissolving that power. Since the beginning of the present century, and continuing up to the present time, Canadian farmers have

pressed for various types of regulatory and protective government legislation.

One such type of legislation was the Canada Grain Act of 1912 which established the Board of Grain Commissioners. The Combines Investigation Act of 1910 and 1923, and the subsequent amendments of the Act in 1951 and 1952, were strongly supported by Canadian farmers.

Another strategy resorted to by Canadian farmers to protect themselves against the alleged exploitation by monopolies was the almost perennial request for investigations by royal commissions. Numerous commissions have been appointed within the last half century to look into such problems as transportation and grain marketing. The more recent royal commission on food price spreads, and the current investigation of farm machinery prices by a federally appointed agricultural committee, suggest that many farmers still believe in the efficacy of public investigations as a deterrent to possible monopolistic abuse.

Frequently, however, public investigations of monopolistic abuse, real or imagined, have been less than satisfactory. It has become increasingly difficult to prove that "fewness and bigness" of firms in a given industry necessarily means that farmers are being exploited, or that some degree of competition does not exist.

It was the unsatisfactory and uncertain results of public investigations, and the inability to dissolve their opponents' power, that led farmers to adopt the technique of fighting power with power of their own.

SELF-HELP THROUGH COLLECTIVE ACTION

PROFESSOR GALBRAITH contends in his book, *American Capitalism*, that power tends to beget power. Any time that a few, large buyers take advantage of their position in their dealings with many, unorganized sellers, there is an incentive for those sellers to defend themselves against exploitation through collective action.

No other industry serves better to illustrate Galbraith's theory of countervailing power than that of agriculture. With notable exceptions that will be described shortly, it is an industry made up of thousands of small, individual farmers buying from, and selling to, industries characterized by a few, large-scale firms. It was this general lack of bargaining power that induced farmers to organize their own self-help programs through co-operatives and producer marketing boards.

It is significant to note that, at the last annual meeting of the Canadian Federation of Agriculture, renewed faith was placed in programs of self-help as the basis for a long-run policy for agriculture. The CFA stated that "while agriculture will need a large measure of government co-operation and assistance in carrying out its program . . . comprehensive development of agricultural co-operatives and producer marketing boards in Canada should be recognized as the best means for putting agriculture on a more stable, orderly basis."

The current emphasis on self-help programs in agriculture is not confined to Canada. President Kennedy in his message to Congress on March 16 reaffirmed that "one of the methods by which farmers can increase their bargaining power and thus remedy to some extent their weakness in the market place is through the effective operation of their own co-operatives."

CO-OPERATIVES AND MARKETING BOARDS

THE marketing co-operative in Canadian agriculture has a tradition of over half a century. The producer marketing board dates back nearly three decades. At no time, however, has the interest been greater in these two types of marketing institutions than it is now. There appears to be a growing faith in what the co-operative and marketing board can do for farmers. Unfortunately, many farm people are badly confused as to what specific functions each type of institution can be expected to perform.

We will attempt to distinguish the differences between the co-operative and the marketing board, and to clarify what economic functions each can be expected to achieve.

Most people are acquainted with the structure of the co-operative and the marketing board. However, it will be worthwhile at this point to summarize the essential features of each.

The Rochdale type of marketing co-operative possesses the following characteristics: (1) one member, one vote; (2) open membership; (3) it is a voluntary organization; (4) earnings of the co-operative are paid back to the members in the form of patronage dividends. The importance of these characteristics will become apparent when we discuss the bargaining power of co-operatives and the ability to control production in agriculture.

There are two basic types of marketing boards: The *negotiating board* and the *central-selling*

board. In the case of the *negotiating board*, a small committee of representative producers negotiate with the processors or buyers for prices and terms of contract. The *central-selling marketing board* usually has the power to control the place of marketing, quantities to be sold, prices to be paid and the service charges to be imposed on producers. It can receive and distribute all money owing to producers. It can also appoint any given agency or agencies to handle the farmers' products, or it can develop marketing facilities of its own. It comes into existence on the basis of a favorable vote among the majority of the producers concerned, but once voted in, it usually becomes binding on all producers within the area under its jurisdiction.

While there are many objectives or functions that could be set up for the co-operative and the marketing board, we will confine our attention to only four of these at the present time. These include: (1) orderly marketing; (2) marketing efficiency; (3) elimination of imperfect competition, and (4) production control.

(1) **Orderly marketing** was the primary slogan of the co-operative movement during the 1920's. It was believed that the average price level (the pooled price) of a commodity could be raised by withholding supplies from the market during low prices, and feeding the supplies back into the market during more favorable periods of time.

As long as the basic problem was one of seasonal (or cyclical) price instability, as long as the co-operative confined itself to withholding supplies over a short-run period, usually one year, and providing the co-operative had control over a significant proportion of the market supplies, the goal of orderly marketing appeared attainable.

History shows, however, that whenever any one of these three conditions did not hold the co-operative was in trouble. One of the most common errors was the attempt to raise prices by withholding supplies from the market during periods of chronic overproduction. Experience has repeatedly shown that control over market supplies and storage are simply not a substitute for production control during periods of chronic overproduction.

Where actual possession and storage of the commodity is required to achieve orderly marketing, the co-operative is necessary. The marketing board can be used to strengthen the position of the co-operative by securing substantial, or complete, control over the supplies coming into the market. It must be noted, however, that the marketing board cannot be used, any more than the co-operative, to raise prices by control over sales when the basic problem is one of chronic overproduction. As a matter of fact, the marketing board must be used with far more discretion in this situation because of its power to control all sales.

(2) **Marketing efficiency.** Whenever the marketing firms within a given industry are operating inefficiently an inducement exists for the development of co-operatives. There is no doubt that co-operatives have

forced private marketing firms in many industries to become more efficient—to provide lower marketing costs to farmers. Of course, the reverse situation has also held true.

To what extent marketing inefficiencies may exist at the present time for many farm commodities we are not prepared to say. However, one question that needs to be raised before the marketing co-operative is pushed into new industries is whether it can do a better job of marketing than the prevailing firms.

It should be noted that the marketing co-operative does not require complete control over supplies or sales in order to enforce greater marketing efficiency among existing firms. Actually, the co-operative requires control over a volume of business just sufficient to ensure: (1) that it achieves full economies in terms of its existing plant and facilities; and (2) that it can exert enough influence on the market to force its competitors to adopt more efficient methods of marketing and processing.

It is unlikely that the compulsory marketing board has any particular role to play in obtaining greater marketing efficiency, unless it is to divert, or to compel, a greater volume of business to flow through the co-operative facilities.

(3) **Imperfect competition.** Whenever private marketing firms are giving farmers a lower price than would be possible if they were earning only "competitive profits," there is every incentive for the development of a co-operative method of marketing.

But is the co-operative really an effective (or even necessary) method of forcing a more competitive situation among existing firms? There does not appear to be any clear-cut answer to the problem. Professor Galbraith argues:

"A strong bargaining position requires ability to wait—to hold some or all of the product. The co-operative cannot make the non-members wait; they are at liberty to sell when they please and, unlike the members, they have the advantage of selling all they please. In practice, the co-operative cannot fully control even its own members. They are under the constant temptation to break away and sell their full production. This they do, in effect, at the expense of those who stand by the co-operative. These weaknesses destroyed the Sapiro co-operatives."

The co-operative has the further disadvantages that it usually takes considerable time to develop the necessary capital facilities, and farmers are usually unwilling to wait that long for results.

The compulsory marketing board may be a more feasible method of forcing greater competition among the existing firms in the market. The board may be used to bargain "across the market" with the firms in question. In some cases it appears that the negotiating type of marketing board is sufficient to guarantee greater competition. The negotiating board is the most common one in Ontario at the present time. Where even greater control over sales is required to enforce competition among a few, large buyers of agricultural products, the central-selling

agency type of marketing board is usually more appropriate.

The best example of the central-selling agency at the present time is the controversial Hog Marketing Board in Ontario. The Hog Board in Ontario bargains across the market with the meat packers. It is interesting to note, however, that actions are now being taken by a group of Ontario hog producers, the Farmers' Allied Meat Enterprises Co-operative (F.A.M.E.) to enter the meat processing business in direct competition with the private meat packers.

Several questions may be raised at this point. Does the attempt by farmers to enter the meat processing business mean that the bargaining power of the Ontario Hog Board, as it is presently constituted, is ineffective? And if so, why is the Ontario Government so apprehensive about the possible abuse, by the Ontario Hog Marketing Board, of its monopolistic power? If and when F.A.M.E. does enter the meat processing business, does it expect to gain advantages by a more efficient processing business, or is the co-operative to be used to eliminate the imperfect competition (excess profits) that may exist in the marketing system? In short, what will be gained by F.A.M.E. that could not otherwise be achieved by the Hog Marketing Board with its virtual monopoly over the sale of all hogs produced in Ontario?

This writer does not pretend to have the answers to these questions. For the serious student of marketing boards, however, these apparent anomalies need to be very carefully examined.

When the marketing board achieves *complete control* over a given commodity it takes on the features of a monopoly. In this instance, agricultural producers must be very sure that the economic power given to them by virtue of the marketing board legislation is used responsibly. As long as the "monopolistic power" of the board is used to enforce greater competition in the marketing system it is likely that public support will be forthcoming. Monopolistic abuse, however, when that monopoly is based on government legislation, whether in agriculture or any other industry, will not be tolerated for very long in a democratic country.

(4) **Production Control.** Up to the present time Canadian co-operatives have never really made any serious attempt to control production in agriculture. Suppose, however, that the low farm prices are not due to any of the three causes discussed above, but rather, are a symptom of chronic overproduction in agriculture. What then?

Certainly control over market sales by itself is not the answer. Neither will the answer be found by withholding (storing) supplies from the market. This has been tried by the co-operatives and has been distinctly unsuccessful. The answer must be sought in terms of production control.

But is the co-operative an effective means of obtaining production control? The answer is generally no. The open membership and voluntary features of the Rochdale type of co-

operative prevent it from being used as an effective instrument of production control.

It was the inability of the co-operatives in the U.S.A. during the early 1930's to enforce production control that led to direct intervention of the federal government in agriculture. The U.S. government initiated its first production control programs in 1933.

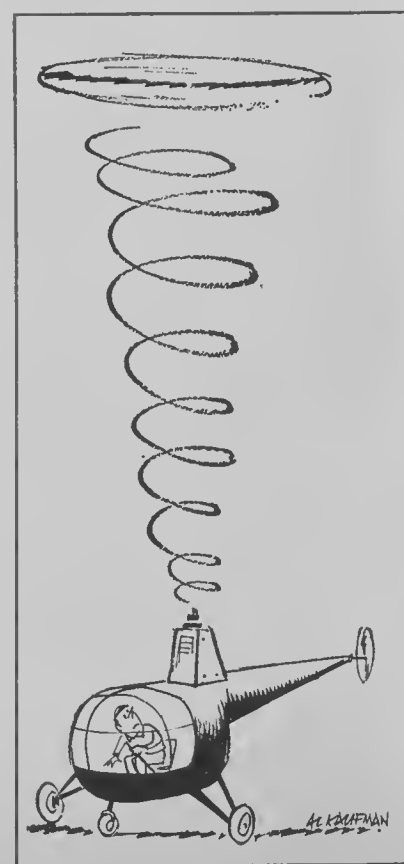
During this same period Canadian farmers turned to the idea of the compulsory marketing board. It is not evident, however, that Canadian farmers originally thought of the marketing board as a device for production control. It appears, rather, that they were preoccupied with the objective of obtaining complete control over sales. Of course, as we have already suggested, control over sales is not an answer when the basic problem is one of chronic overproduction.

In theory, there appears to be no reason why the compulsory marketing board, based on majority support of course, cannot be used to enforce production control in agriculture. In practice, however, several serious difficulties are encountered. These will have to be overcome before the compulsory marketing board can be used to enforce production control in agriculture. These difficulties are outlined below.

• **Inter-regional competition:** Because of the political and constitutional difficulties of forming an inter-provincial type of marketing board, most of the existing boards are under the jurisdiction of a particular province. If the commodity in question is produced exclusively in the province in which the marketing board is operating, production control is possible.

For most commodities, however, production takes place in several provinces. In this case it is impossible for a marketing board in any given province to have any control over supplies produced outside of the

(Please turn to page 22)



How foothill farmers learned the hard truth about borderline spark plugs

They found that you can't rely on your ear to ferret out these daylight robbers of power and gas

Take fourteen tractors from farms around Okotoks, Alta. Put them through a "before and after" dynamometer test. What have you got? Some pretty amazed farmers.

Like previous Champion-sponsored tests in other parts of Canada, the tractors were tested first with their old plugs and then with new Champions installed. Though all

the tractors *sounded* as if they were running well, new Champions increased horsepower an *average* of 5.1%.

That's the evidence . . . *borderline* spark plugs can waste plenty of power and gas long before you notice any misfiring. To keep your tractor at full power and economy, put in a new set of Champions *every 250 hours*.

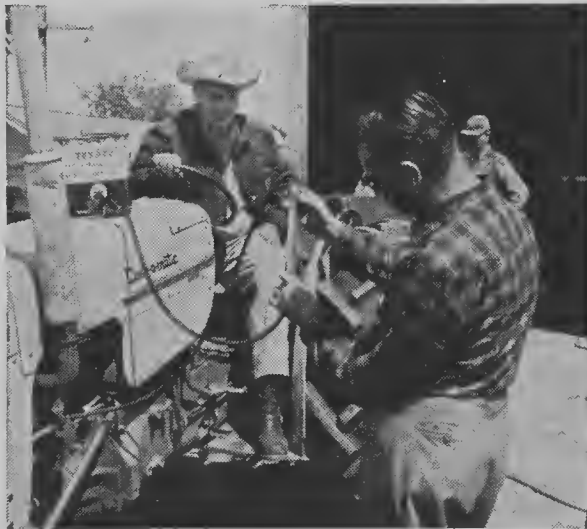


At the J. I. Case dealership of Oliver and Bice in Okotoks, Alberta, a tractor's horsepower output is tested on a pto dynamometer. As Dick Looy put it, "I change plugs once a

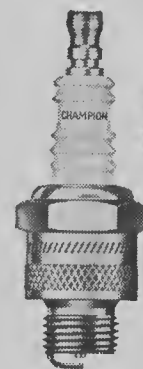
year, but I guess that's not enough. A set of new Champions gave me three more horsepower. Now I won't have to shift gears all the time when using a 3-bottom plow."



Bill Wathen (far left) and his son Gordon (far right) watch the dial as their tractor is tested on the pto dynamometer. Results? With new Champions installed, an increase of 7 horsepower and gas consumption cut 12.4%. "I never dreamed changing spark plugs could make such a difference," said Gordon. "That 7 horsepower will make half a tractor again!"



In addition to the dynamometer test for horsepower, a flowmeter was used to check each tractor's gas consumption before and after changing to new Champion spark plugs. Norm Willumson (in tractor seat) was well satisfied to find his engine used 14% less gas with new Champions. "At a rate like that, *borderline* spark plugs can cost you a pile of money," said he.



Get full power with new

CHAMPION

SPARK PLUGS

PRODUCTION CONTROL

(Continued from page 20)

province. By contrast, most buyers, even if located in one province do have access to the inter-provincial market.

- **Inter-product competition:** Even if a given marketing board could secure absolute control over the production and marketing of a particular commodity, the program could fail if similar control was not exercised over a closely competing substitute. For example, it is unlikely that a hog marketing board could be fully effective over the years unless all red meats were subject to marketing board control.

Even if there are no close substitutes for the particular commodity being controlled under the marketing board, the resources released from the controlled commodity are transferred to other commodities not controlled. Thus the problem may be simply shifted from one commodity to another.

- **Enforcement of production control:** The problems associated with the implementation of a production control program will be discussed in the last article of this series. Suffice to say here that the marketing board would have to resolve many economic and administrative issues before the production control program could really become effective.

ADDING up the pros and cons, then, this is what we can finally conclude on self-help programs.

The co-operative can be used to achieve orderly marketing providing that no attempt is made to withhold supplies from the market during periods of chronic overproduction. The marketing board can be used to complement the co-operative in achieving orderly marketing by gaining greater control over all supplies coming into the market. —

The co-operative is a very sound way of achieving greater marketing efficiency and lower marketing costs. There are limited advantages in the use of the compulsory marketing board for this objective.

The co-operative does not appear to be a satisfactory way of eliminating imperfect competition in the marketing system. The compulsory marketing board can force greater competition among existing firms providing that its control over supplies covers the same market area as that from which the buyers do their buying.

The co-operative cannot be used to enforce production control in agriculture. In theory, it appears that production control can be achieved by the marketing board. In practice, however, many serious obstacles would have to be eliminated before production control could be achieved. V

Note: Government Intervention in Agriculture, the concluding section of this article, will appear along with Part III of this series on "Production Control in Agriculture" in the June issue.—Ed.

Best Way to Boost Egg Sales

Jim Dunbar aims for a bigger market, better prices, through shipping special quality eggs

by DON BARON

ONE look into Jim Dunbar's laying pens will tell you that this poultryman settles for nothing less than top quality eggs. The hens are as clean as pullets on summer range. The pens are dry and fresh. There is no dampness to soil feathers or eggs. Clean eggs are the rule.

But the eggs are more than just clean eggs. Cleanliness is only shell deep. These eggs are standing up to the toughest test of quality so far devised. Dunbar ships to the Moorefield Produce Co. grading station and that station is subjecting the eggs from its top shippers to the Haugh unit test — a break-out test that measures firmness of the white and yolk.

The Haugh unit test may soon be used by the federal government in establishing a special grade for super quality eggs. Moorefield Produce Co. is using the test now as one means of increasing egg sales, and of securing higher prices. Flockowner Jim Dunbar agrees that higher quality eggs could well be the key to tomorrow's egg industry.

IN explaining those clean hens, Dunbar says: "You must have dry litter in the laying house. The way to get it is to have buildings that are well insulated and adequately ventilated." Dunbar's three laying houses are all insulated with 3 inches of fiberglass batts.

It takes more than clean hens to produce quality eggs, and Dunbar's flock management provides an object lesson in what else is involved. He has wire-covered dropping pits in the center of the pens, and hangs waterers and some feeders over these. Roosts are provided there as well. He cleans out these pits every couple of months to help control moisture and ammonia in the pens.

To keep the hens scratching and turning over the litter, he throws them scratch grains every day — about one pound per 100 birds. He



Buildings are well insulated; wire-covered dropping pits are cleaned out regularly to control moisture. Community nests result in few floor eggs. [Guide photos]

prefers community nests to single ones for they usually result in fewer floor eggs, and permit easier gathering.

Despite this careful flock management, Dunbar emphasizes that producing a quality egg is only half the battle. "That egg must be carefully handled, too. I wouldn't invest over

wood duct drawing air from its outlet on the north side. As baskets of eggs are taken from the washer, they are set into holes in the tunnel. Outside air blowing over them dries the eggs rapidly, and partially cools them.

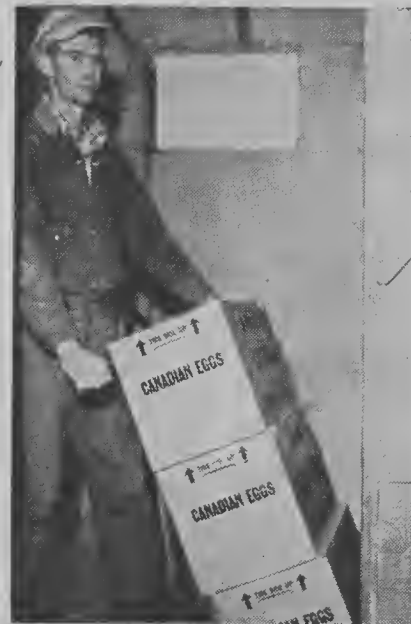
When he started using this tunnel, Dunbar recalls, the proportion of B grade eggs declined noticeably. In making the tunnel, he used an old washing machine motor for power, and attached a 12-in. fan to it.

Once the eggs are dried, they are packed in trays. Any remaining dirt spots or stains can be removed with the buffer which is mounted on a little electric motor on the wall. Then they're crated and immediately moved into the cold storage room. They are picked up by refrigerated truck twice a week, to be taken to the grading station and then to market.

DUNBAR has only 50 acres of land on his Wroxeter, Ont., farm and he feeds off 50 steers a year, as well as producing eggs. He has built his flock gradually. He added a second building for hens a few years ago, and then in 1958 added the third one. He can accommodate about 6,000 hens all told, but he keeps this number laying for only a few months each summer and fall. He cuts back during the winter time when eggs normally are lower in price, and starts his new flocks then.

Preferring to buy replacements as day-old chicks, Dunbar raises them right in the laying pens. Then, they suffer no setback from being moved.

Normally, he keeps a flock of birds in lay for about 10 months. Then he molts them and brings them back to lay for another few months. Before the quality of the eggs they produce declines too far, he sells them and starts another flock. V



When eggs are crated they go directly into Dunbar's insulated cooling room.

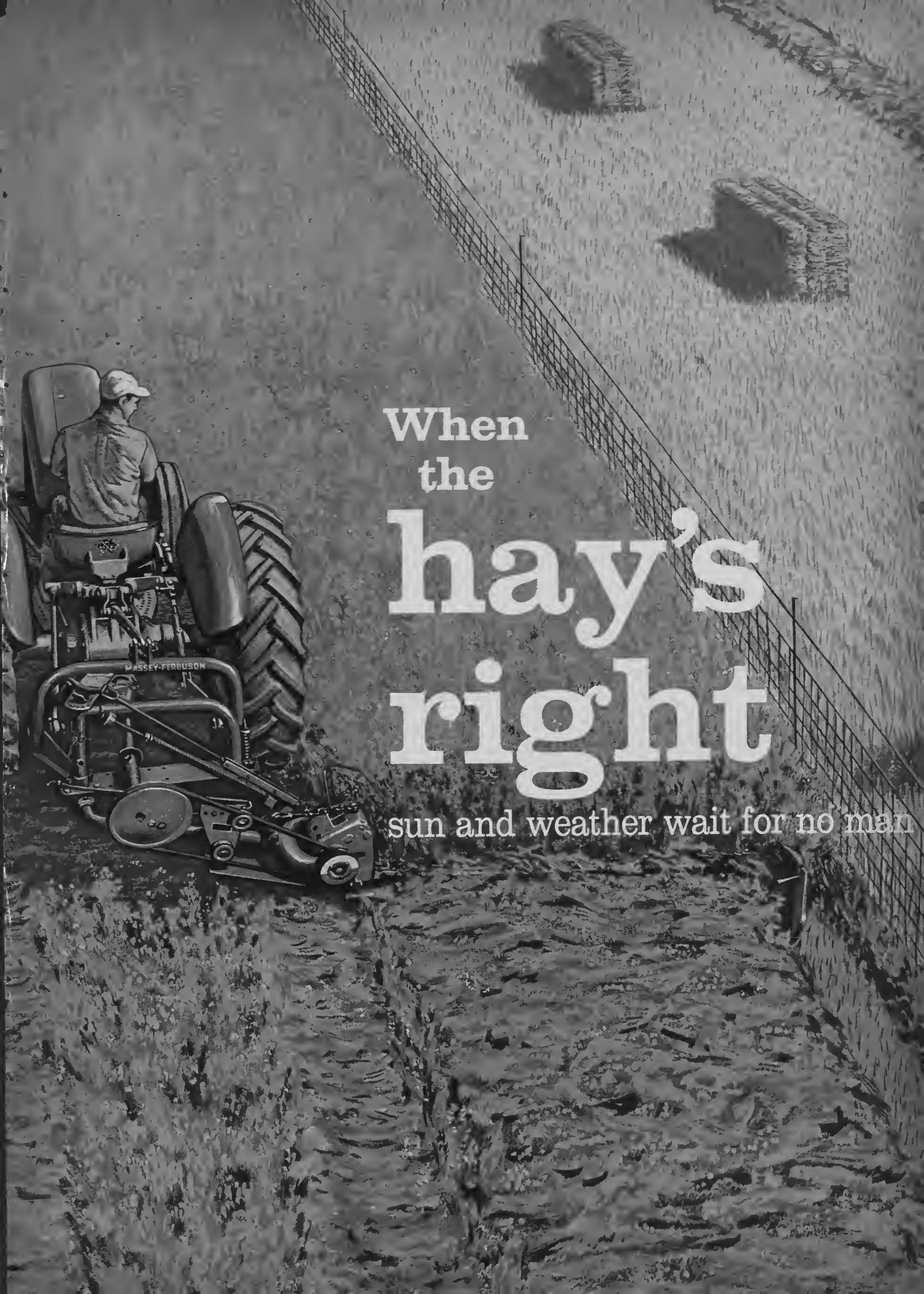
\$1,000 in egg rooms and equipment to wash and cool those eggs if I thought there was an alternative."

He built a handling and a cooling room on the north side of the laying house. Both are insulated with 4 inches of fiberglass batts. The handling room measures 6 ft. by 8 ft., while the cooling room is 10 ft. square. The latter is equipped with a refrigeration unit which will keep the temperature below 55°F.

A key feature of the handling room is the wind tunnel for drying and cooling the eggs. This is a ply-



Eggs gathered twice daily are washed then dried and cooled in wind tunnel.



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the

hay's
right

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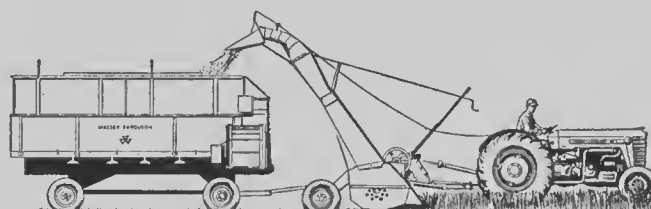
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Through Field and Wood

by CLARENCE TILLENIUS—No. 32

THUMP! A faint throb of sound vibrates softly through the woods and all is still once more. From where did it come? The silent woods give out no clue. The moments pass in lengthening stillness. Perhaps the sound was only imagined. Suddenly it sounds again, then another and another, blending into a thundering flurry: Thump . . . thump . . . thump . . . thum-thum-r-r-r. A rustling of leaves follows, and the woods are silent and dreaming as before.

This is the drumming of the ruffed grouse. All over Canada the spring woods resound to this stirring rhythm. At early dawn, in mid-day, at sunset the ruffed drummer performs in sheer joy of life. Even in the velvety dark of the spring night his song of love beats on.

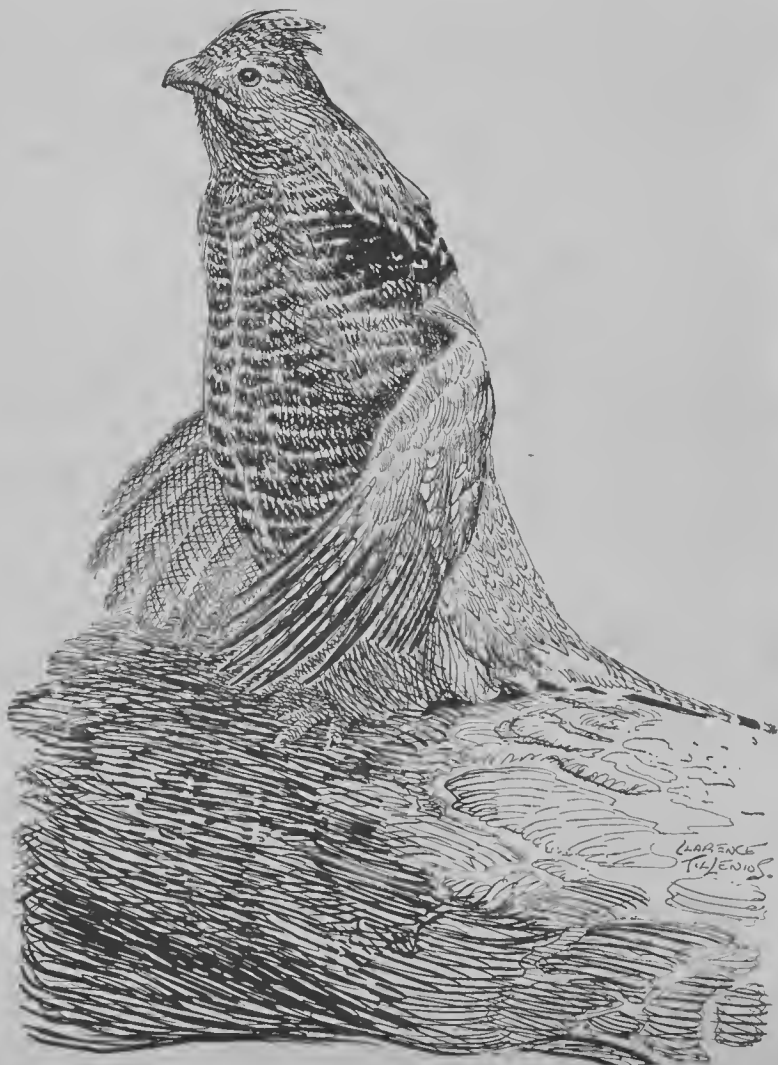
Few people living in grouse country have not heard the drumming: not everyone has seen it done. It is interesting to watch. You must first locate a drumming log. Such logs are often used year after year, a new bird taking over when fate removes the original owner. In a specially favored spot in a dark thicket or deep woods, such a log may remain in use, slowly decaying until at last only a mossy mound remains.

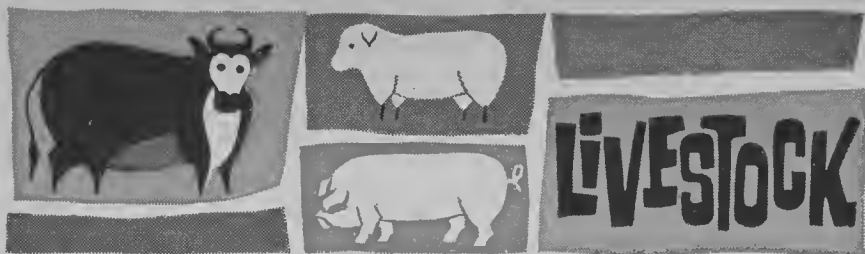
It is possible, guided by the drumming, to approach a bird on his log, but by coming before dawn and hiding near the log, you are there

when the bird comes and so miss no part of the performance.

Arrived on the log, he stands quietly, almost dejected, wings drooping. From far off comes the sound of another drummer. Now he becomes restless, shifting from one foot to the other. He gives a preliminary thump and stands quietly, looking about. Then a second thump. Now he grows ecstatic. His tail begins to raise and spread. He raises himself upright, his chest thrown out. The wings spread out and begin to beat, at each clap almost meeting in front of his body. The drumming ends in a quick flurry which sends a blast of air scattering the dead leaves in front of him. He ceases drumming and stands, a picture of grace, head lifted, ruff slightly raised, tail arched in center and spread. Gradually the tail folds and droops, the wings drag limply and the bird resumes his rather dejected, waiting pose.

Though this is a song of spring, it is sometimes heard in the fall. One moonlit night in late October, tenting alone in northern Manitoba, I awakened after midnight to the sound of two grouse drumming in the woods behind the tent. It was freezing hard but they drummed on, now near, now far, until the two beats merged into a drowsy, persuasive rhythm, and I fell asleep again.





Lambs Weaned At Four Months

WEAN lambs when they're 4 months of age. If you do this, ewes begin to come into heat more regularly in the August to January breeding season. Lambs need forage and grain after 4 months because they cannot get enough nourishment from their mothers' milk, so weaning them all at once gives them an equal chance to grow on regular feed.

This advice comes from Bob May, livestock specialist with the Saskatchewan Department of Agriculture. He also suggests that during weaning the ewes should be put on used-up pasture to help their milk supply to dry up. But lambs should have good pasture or fall stubble to increase the quality and quantity of their feed intake. If you wean them in a corral away from pasture, they should be fed roughage plus one-quarter pound of grain daily. Grain feeding should increase until the lambs are eating up to 2 pounds of grain each day.

While separating lambs from ewes,

Mr. May says you should take buck lambs and rams out of the flock if they are not already in separate quarters. Rams should not have access to ewes after August 1, except as arranged.

The breeding ewes should be kept in low to medium condition. But 3 weeks before breeding they need a highly nutritious ration, such as pasturing on stubble or fall rye. If there is no good pasture, the ration might be improved by feeding grain. The better ration means they are bred in good condition to produce more twins and to lamb within a relatively short time the next spring. A lambing period of 3 to 4 weeks means less work for the shepherd.

Rams should be brought up to a thrifty condition by a similar feeding program before breeding. Regular grain will help to keep them in vigorous condition in the breeding season.

Teat Protection

WHEN cows are turned out in spring, rub a little zinc oxide or other protective ointment on the teats, suggests Fred Hamilton of the

Ontario Agricultural College. This prevents and relieves sunburned teats, which can cause serious milking problems. But be sure to clean off the medication thoroughly before milking. V

Cut Grass For Market Hogs

AT the Agassiz Experimental Farm, B.C., they've been trying to reduce feed costs by hand-feeding freshly cut grass to market hogs which are on self-fed grain. The conclusion: grass cut daily and fed to hogs may cut production costs if the cost of handling grass is not too high. The experiment has also shown the importance of adequate protein in the finishing ration for highest daily gain, feed efficiency, and carcass quality.

The hand-feeding of freshly cut grass was compared with self-feeding in drylot without grass, and self-feeding on grass pasture. The freshly cut grass increased rate of gain over both of the other systems. Pigs self-fed on pasture gained at the same rate as those in the drylot without grass, but they produced carcasses with more lean cuts.

Another aspect of the experiment tested the level of protein to use in the finishing ration from 110 to 200 lb. live weight. Protein levels of 16, 14, and 12 per cent were used. Rations containing 16 and 14 per cent protein produced faster gains, higher feed efficiency, and leaner carcasses than the 12 per cent protein ration. V

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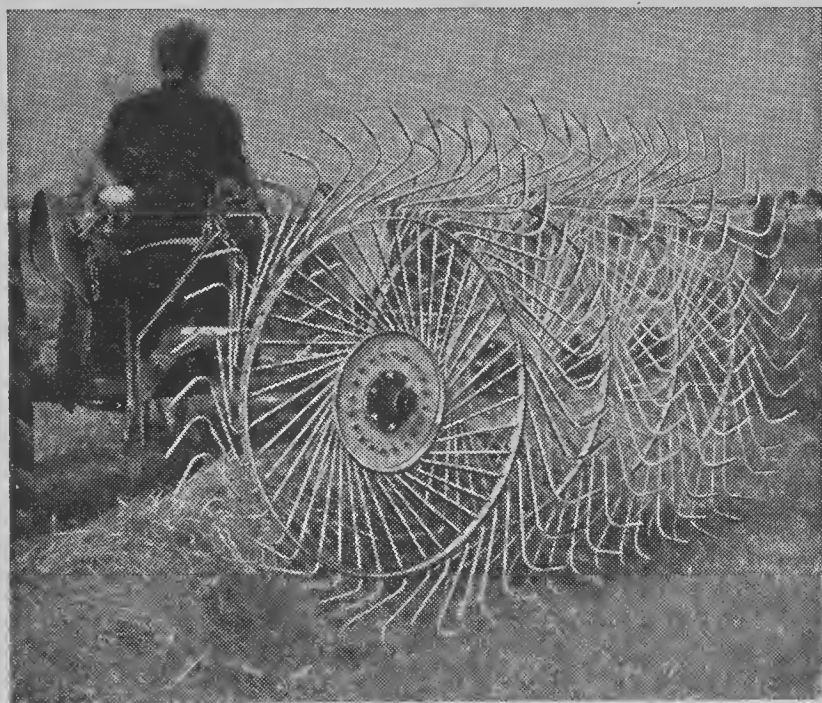
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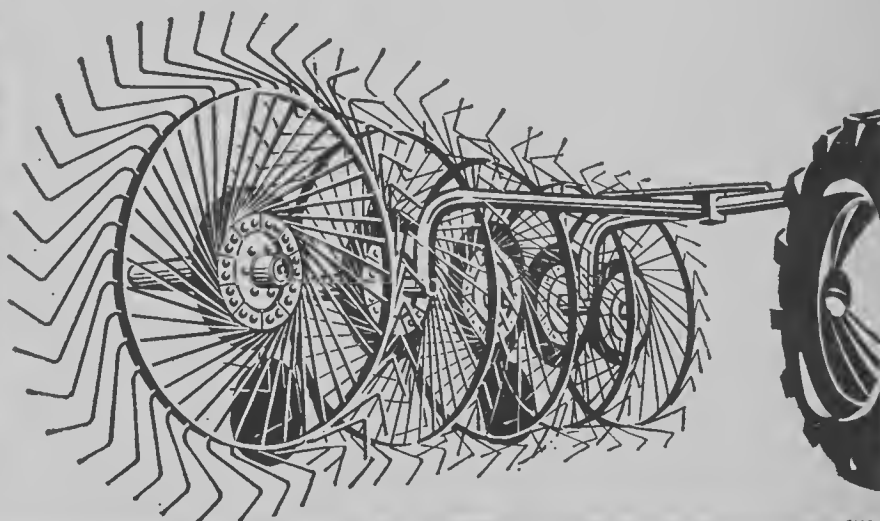
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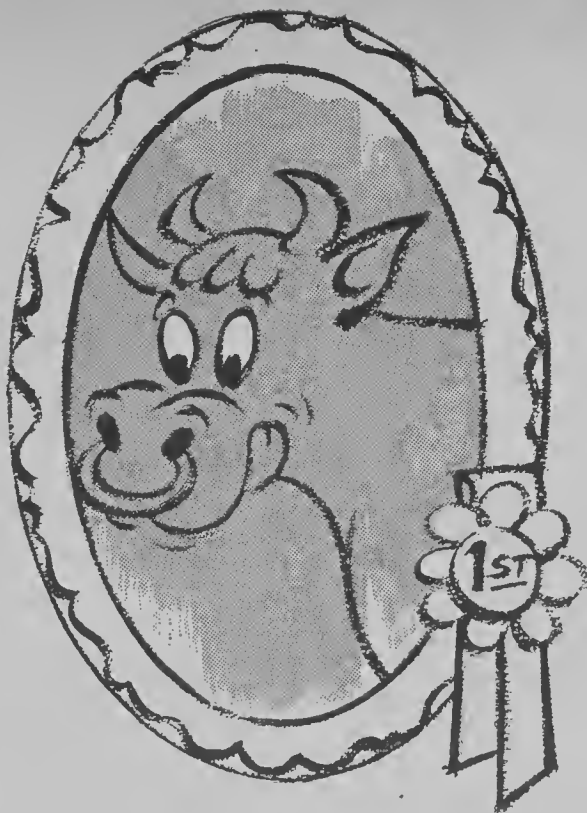
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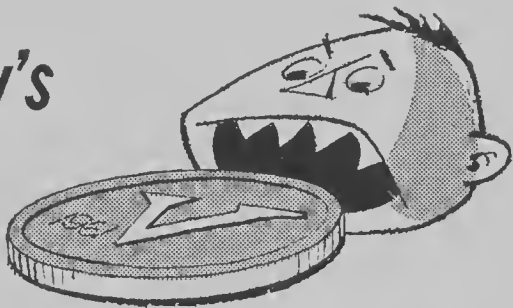


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Livestock's Role On the Grain Farm

THESE are the ways in which livestock can benefit the grain farmer, as listed by Jake Brown of the Saskatchewan Department of Agriculture:

- Livestock increase net farm income by spreading fixed costs.
- They increase production per acre.
- They provide labor all year.
- They make it easier to adjust to changing market conditions.
- They help to stabilize income.
- They provide a broader base for obtaining credit.
- They give more flexibility in income tax management.

Mr. Brown says that grain farmers find that fixed costs, such as land and buildings, are met more easily when spread over more production. Livestock can use waste land and unused buildings.

A three-quarter section grain farm's labor charge to grain can be cut in half by feeding 135 to 150 feeder steers, or 275 to 300 hogs, or raising a 35-cow beef herd or 1,500 chickens. The extra costs are chiefly feed. Even on smaller farms, where returns over costs are low, putting unused labor to work can earn a wage. Many grain farmers are underemployed during slack seasons.

It is better on some farms, in Mr. Brown's opinion, to try to get more production out of an acre with livestock rather than buy more land to increase production. But he advises investing in livestock and enough machinery to farm a large acreage, renting extra land to make large machinery economical. Farm business surveys in Saskatchewan have shown that bigger, more successful farms rent a larger share of land and have large livestock enterprises.

Livestock also help farmers to adjust to current markets where there is a surplus of grains and marketing quotas. Prairie farmers might safely increase oat and barley acreages by 1.5 million acres, but should not grow more wheat than in 1960. Surplus grains could be marketed by feeding them to stock, or some might sell feed to neighbors who feed stock.

Another point Mr. Brown makes is that banks and other lending agencies consider that farmers are better credit risks if they own livestock. The livestock grow in value rather than depreciating, and usually they bring a financial return. Many farmers make improvement loans for machinery using livestock as partial security.

As to stabilizing income, the Saskatchewan crop income tends to come in bunches of "good" and "bad" years, and livestock income will help to even these out. Another result is to provide an additional means of averaging out income for income tax. Furthermore, with a basic herd there is an added possibility of making capital gains.

All this is fine, but Mr. Brown cautions the grain farmer to assess his plan before going into livestock. He should make out a budget of costs and returns, he should decide whether livestock fit into his farm, he must have enough feed and water for them, and he must like to work with animals.

Hog Farm Has Manure Lagoon

A MANURE lagoon has worked perfectly on a North Dakota farm, even in below-zero weather. The farm has 1,500 hogs, with plans to increase to 5,000 purebreds a year under confinement. The lagoon has been tried as a simple, efficient means of handling the manure.

This past winter there were 250 hogs in the finishing house until the first of the year, when the number was reduced to 80. About 500 gallons of wash water were used daily to clean the pens occupied by the 80 hogs.

The lagoon is 100 ft. wide, 150 ft. long, and about 4½ ft. deep from the waterline. Underground tile 8 in. in diameter, runs from the finishing house and extends 3½ ft. into the lagoon. The outlet is about 18 in. above the waterline. When cold weather set in last fall, the liquid in the lagoon thickened, and a layer of ice formed around the edges, but it remained unfrozen around the tile. Extra water was pumped into the lagoon from time to time to keep the depth at about 4½ ft.

Pen floors are washed daily with a high pressure hose. The water runs into a disposal tile passing midway through the finishing house. There is no overflow pipe in the lagoon, but one could be installed if needed. The lagoon is about 800 ft. east of the farm home, and about 80 ft. from the hog house.

Future plans are to build a new farrowing house in line with the growing and finishing house. It will be equipped with a network of floor drains.



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WEEDONE Weed Killers are produced by Amchem Products, Inc. (Formerly American Chemical Paint Co.), the company that originated and developed such basic weed killers as 2,4-D, 2,4,5-T and Amino Triazole (Amitrol). They've been in the forefront of the weed killer business since they originated the first 2,4-D weed killer—and that's your assurance of the best chemicals that money can buy to do the job!

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WEEDONE CONCENTRATE—Powerful ester formulation (contains 64-oz. 2,4-D acid equivalent per gallon)—especially effective for control of hard-to-kill annual and perennial weeds. Emulsifies readily in hard or soft water. Economical—Versatile—can be used even if rain threatens!



ACP GRASS KILLER (TCA 94%)—A 94% sodium trichloroacetate formulation used extensively throughout Western Canada for control of annual and perennial grasses in non-cropped lands, ditch banks, fence rows, industrial areas, parking lots, railroad ballast and special crops such as flax, field peas, alfalfa and beets.



WEEDONE 128—The double strength, emulsifiable ester concentrate containing 128 oz. 2,4-D acid equivalent per gallon. For control of weeds in wheat, barley, rye and pastures. Especially formulated for use in ground or airplane spray equipment. Can also be used for weed control on roadsides and non-cropped areas.



WEEDAZOL (AMITROL)—Proven formulation for powerful killing action on hard-to-kill perennials that even withstand 2,4-D and 2,4,5-T weed killers. Being effectively used to control Canada thistle, quackgrass, Russian knapweed, Bermuda grass, toad flax, leafy spurge, poison ivy and poison oak. A non-sterilant you can use with complete confidence.



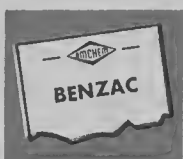
WEEDAR MCPA CONCENTRATE—Aminic formulation (64-oz. of 2-methyl-4-chlorophenoxyacetic acid per gallon), specifically recommended for controlling weeds in oats, flax, peas, and newly seeded or established legumes. Safe, selective, especially tolerant to crops.



WEEDONE 638—This low volatile 2,4-D formulation, especially effective on deep-rooted perennials like bindweed (morning glory), Canada thistle and a host of others, works effectively where many other products fail. All the Weedone 638 applied remains on the weed to do the work of killing it.



WEEDAR 80—Amine formulation (80-oz. of 2,4-D acid equivalent per gallon). Ideal for control of annual weeds. Extremely easy to use, is completely soluble in water, will not clog spray nozzles. Will not injure adjoining crops except in case of drift.



BENZAC—Benzac's liquid formula gives you a *double action* weed killer on bindweed that works through the foliage and the root system to kill all growing weed plants in one application.



WEEDONE LV4—This powerful, low volatile butoxy ethanol ester (64-oz. 2,4-D acid equivalent per gallon) provides deep penetration and effective killing action on hard-to-kill annuals and perennials. Used for spraying near susceptible crops, shelterbelts or horticultural crops.

AMITROL-T—A new liquid formulation of AMITROL now available in Western Canada. Controls couchgrass, Canada thistle and other tough perennial weeds. Literature giving complete information on the use of AMITROL-T is now available.

See your nearest U.G.G. Agent or Dealer, or write to

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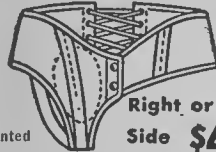
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LIVESTOCK

Ewe's Milk And Lamb's Growth

THE amount of milk produced by the ewe determines the growth rate of the lamb. That was shown in a 2-year test with five breeds of sheep by Dr. R. D. Clark of the Lethbridge Research Station, Alta.

Maximum milk production was reached in the first week after lambing in most cases. Almost twice as much milk was given during this week by ewes nursing twins than during the eighth week. By the end of the eighth week the milk production of mothers of twins and singles was about the same.

Canadian Corriedale ewes with singles averaged 2.8 lb. of milk daily in the first 8 weeks, and those with twins averaged 4.3 lb. This was the greatest difference in all the breeds tested. Single lambs gained an average of 32 lb. and twins 26 lb. each.

Suffolk ewes with singles averaged 3.5 lb. of milk daily, which was the highest of all breeds with singles, but those with twins averaged 4.0 lb. The Suffolk singles gained an average of 37 lb. by 8 weeks, and the twins 23 lb., making the greatest difference in any breed.

The pounds of milk available per pound of gain during the first 8 weeks were as follows:

	Singles	Twins
Corriedale	4.9	4.6
Hampshire	5.3	4.6
Suffolk	5.3	4.9
Rambouillet	5.6	4.7
Romnelet	6.2	5.0

Canadian Corriedale singles made the most effective use of milk available; and for twins, the Corriedale and Hampshire breeds rated best. Another interesting point is that twins utilized their milk supply slightly more effectively than the singles did. ✓

Catching Warbles When They Migrate

ONTARIO farmers in about 250 townships are treating their cattle for warble grubs under the Warble Fly Control Act. Livestock Commissioner W. P. Watson says the treatment involves a mixture of derris powder and water applied with sufficient force to pass through the openings made by grubs in the backs of cattle.

Unfortunately, all grubs do not appear at the same time, so treatments must coincide with the migration of grubs. The first treatment destroys only those that have made openings in the hides at the time it is applied. So it's generally necessary to apply another treatment 3 weeks later to catch the late ones.

If not treated, the grubs develop into flies, which mate and the females lay eggs on the lower extremities of cattle. During this process, cattle are terrified and "gad" across fields in an effort to escape. But flies move faster and usually succeed in completing their missions.

After a few days, the eggs hatch into tiny larvae, which enter the body through pores in the skin.

Once there, they grow and then migrate, first to the front end of their host, then along the back to the middle region. They bite holes in the hide to escape, taking about 3 weeks to enlarge the opening sufficiently to pass through it.

Warbles cause millions of dollars of damage annually. The flies reduce milk flow and beef production, the grubs damage the hides. Meat must be trimmed from around areas where warbles have been.

To reduce losses, says Mr. Watson, the pest must be attacked at the most vulnerable period of its life cycle, which is during the time it is on the back of its host. ✓

Insecticides Are Not All Alike

IT pays to find out which insecticide suits your purpose best. To ensure that traces of chemicals don't get into milk or meat, use only those recommended for louse control in milking cows or beef cattle. Also, observe the prescribed waiting periods when they apply.

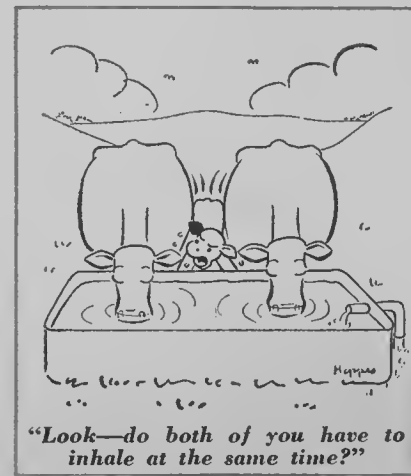
J. B. Gurba of the Alberta Department of Agriculture says some of the commonly used insecticides leave traces in milk and beef fat. Rotenone and pyrethrum are the only insecticides recommended for use on milking cows. Rotenone warble wash or spray has been satisfactory for control of warble grubs and lice.

Malathion, with a waiting period of 14 days, and DDT, with a waiting period of 30 days, are recommended for beef cattle being fattened for slaughter. Many of the common insecticides should not be used for slaughter animals.

The recommendations for insecticides apply also when used on back-rubbers and in other forms. Whatever the method, Mr. Gurba suggests you follow the directions on the label. ✓

Size of Tank

HOW much water will you need for your pasture? Professor Raithby of the Ontario Agricultural College suggests a tank of 350 to 600 gallons capacity, if it is not on a pressure system, for a herd of 20 to 30 beef cattle. The larger size is useful if there's danger of a power failure and you need a 2-day supply. ✓



For dependable service under hot, dirty conditions, this Wisconsin baler engine is protected by pre-cleaner, rotating flywheel screen, and high-temperature safety switch. Baler is made by Massey-Ferguson Ltd., Toronto, Ontario.



*bales up to 10 tons per hour
with a feather touch*

power by WISCONSIN beats schedule and heat

It makes big, heavy wind-rows look small—helps you beat your baling schedule—and gives you custom capacity with economy. That is why Massey-Ferguson powers the MH-3 baler with a Model THD Wisconsin Engine.

You can count on the 18-hp Wisconsin to keep the MH-3 on the job, and on-call throughout the haying season. The THD is precision-built for heavy duty. Its high torque prevents stalling. Stellite exhaust valves and

inserts and rotators improve engine efficiency and extend valve life up to 500%!

Heat is no problem. The Wisconsin is air-cooled—and dependable at 140°F. (60°C.). Maintenance is extremely simple. You don't have to worry about dry-ups, water, or clogged radiators.

Ease your baling with equipment powered by heavy-duty air-cooled Wisconsin Engines, 3 to 56 hp. All models are available with electric starting.

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LIVESTOCK

Foresees Hog Price Drop

YOU might save the best of your gilts for breeding stock and really concentrate on boosting your percentage of grade A's. This is the conclusion reached by R. G. Marshall of the Ontario Agricultural College, who sees the trend in hog prices as follows:

1. Prices will climb from the seasonal low in April of \$26-\$27, grade A Toronto, to \$28-\$29 between May and August.
2. Prices will start to drop in the fall, and by the end of 1961 they will probably be \$24 or \$25.
3. Prices will stay below \$25 for most of 1962.

Mr. Marshall bases his predictions on the marketing forecast for the last part of 1961, which shows an increase of 16 per cent over 1960. The situation should be even worse in 1962, with peak marketings probably in the fall of that year. ✓

Vet's Role In Disease Prevention

MANY farmers think of consulting the veterinarian only as a last resort, says Dr. J. P. Best, supervisor of Alberta veterinary inspection service. Staggering losses are the result. To get the most from the scientific knowledge of the veterinarian, livestock men should heed and use his advice on disease prevention. This is of particular value in hog raising because the birth-to-market time factor is so critical.

As Dr. Best puts it: when disease is cured in a litter of pigs it gives a feeling of satisfaction; when disease is prevented it gives both satisfaction and profit.

Disease in little pigs is best prevented by proper feeding and management of sows before they are bred. Don't hesitate to seek the advice of your local vet. and district agriculturist. ✓

Silage for The Beef Herd

YEARLING cattle have maintained their weight on nothing but good grass silage at the Lennoxville Experimental Farm, Que., and the Central Experimental Farm at Ottawa. Steers and heifers maintained their weight too, but if the moisture content of silage was high, they were unable to eat enough to meet their energy needs.

Hay-crop silage, rich in protein, carotene, and calcium can provide a simple answer to winter feeding of beef cattle. It may be fed alone or with hay to wintering pregnant beef cows. They may lose weight but the weight and vigor of their calves will not be affected.

Good silage is greenish or yellowish-brown in color, and has a mildly sweet and pleasant odor. Poor silage is yellow and gives off an offensive odor which clings to clothing and hands. Black silage, or silage which has become moldy, is unfit for cattle feed. ✓



A sharp eye for a good buy

This man's sharp eye has little to do with 20-20 vision! It was developed through experience; years spent judging the weather, crops and stock.

As a farmer, a sharp, experienced eye is one of your greatest assets.

Take your choice of equipment, including tires. You have a wide choice . . . a wide range of prices. Sometimes, just to be able to claim "lowest price", quality and service have been sacrificed.

Of course price is important, but a sharp eye looks beyond the price tag. Dependability in action. Service when and where you need it. Availability; the item you want, when you want it.

At Goodyear, these are the considera-

tions we take into account when building farm tires. Perhaps this is why Canadian farmers buy more Goodyear tires than any other kind. But it doesn't stop there!

Goodyear employs a staff of Farm Tire experts—men who know farmers and farming—to keep check on the demands of new equipment and new methods. And the tires themselves are continually being tested, to make sure they deliver the service you expect of them at a price that is both reasonable and realistic.

When you need tires—for tractors and implements, trucks, cars—be guided by past experience, rely on your sharp eye. For the best buy in tires and tire-service . . . see your Goodyear dealer.

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See your Goodyear Dealer for your personalized Scotchlite Nameplate—for your mailbox, gates, trucks, farm buildings.

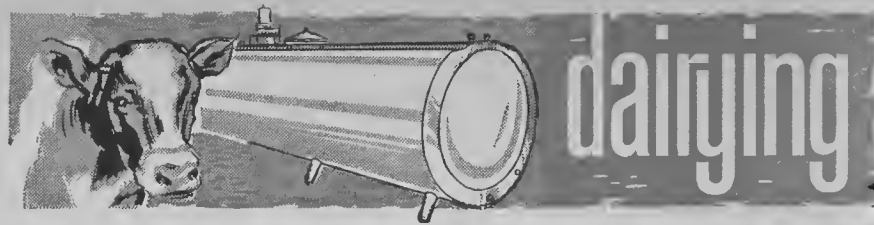
MR. DAIRYMAN: SUPPORT YOUR JUNE SET-ASIDE! FOR ADVERTISING AND SALES PROMOTION OF DAIRY FOODS

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From Fruit To Dairy Farming

WHEN the killing frosts of 1950 hit the B.C. Interior, Bill Palmer found himself with about 15 acres of dead or damaged fruit trees. The only producing unit left was the family cow. Then and there, Bill decided to switch to dairy farming. After all, he told himself, this wouldn't be the last severe winter. There wasn't much future in

"For years I put up corn in a tower silo and fed corn silage and grain," said Bill. "This was a good ration. The cows did well on it. I'd still be feeding it if I could've found a convenient way to get the stuff from the silo to the feeders. As my herd got bigger, the labor problem increased to a point where I had to change my system. I decided the best way was to ensile grass in a bunker silo equipped with self-feeders."

The next job was to put the whole 30 acres into permanent pasture. Bill found the housing development a help here because he could draw all the irrigation water he needed from its domestic water lines. Later, he was able to lease 100 more acres of land from an Indian school, located 9 miles away on the South Thompson River. Furrow irrigated,



Bill Palmer's place nestles against grassy hills just north of Kamloops.

nursing an orchard along for 8 to 10 years only to have it wiped out before it got properly into production.

A fighter pilot with the R.C.A.F. in World War II, Bill had used his DVA credits to buy 30 acres of level bottom land at Westsyde, about 7 miles north of Kamloops. The decision to become a dairy farmer soon posed another problem — where to get more land to feed a growing cow herd. The Westsyde bench had become completely subdivided in the meantime, and the Palmer place was now surrounded by new homes.



Technician Jimmy Laird takes blood sample for the Bang's disease tests.

with water pumped from the river, this land produces brome grass and alfalfa. Yields of alfalfa run as high as 6 to 7 tons per acre.

Bill cuts these crops with a self-propelled forage harvester. He has a

(Please turn to page 34)



Palmer abandoned his tower silo in favor of the bunker type which he can fill quickly and easily with a dump truck. It also permits self-feeding.

YOU NAME THE JOB! CHEVROLET'S BUILT TO DO IT BETTER!



FROM TULIPS

Chevrolet even locks in the fragrance! But tight-fitting, sponge rubber sealed doors are only one feature of Chevrolet Panel Trucks. There's the big (up to 231 cu. ft.) virtually unobstructed cargo space — low floor design for easy loading — telescoping rear door checks — and, of course, Chevy's famous light, firm, positive handling that takes traffic in its stride.

Whitewall tires optional at extra cost

TO TOPSOIL

A high-stepper to take you out of the muck and over trails fit only for a mule train! Sure, Chevrolet Trucks are built to take punishment — *but* that Torsion-Spring Ride absorbs the bumps before they reach truck, driver and cargo. And the Comfort-King cabs keep drivers fresher, happier and safer.



TO TIMBER

Need raw brute strength to take a load from the hinterland to the highway? Chevrolet has the horses — wrapped up in power teams that are famous for muscle and economy. Famous, too, for their stamina — their long-lasting ways that keep them purring and powering with a minimum of maintenance year after year. So, no matter what the job, if it involves a truck, you should involve your Chevrolet Truck dealer. See him soon!

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Gets bacteria counts less than 6,000 with Gillett's Lye!

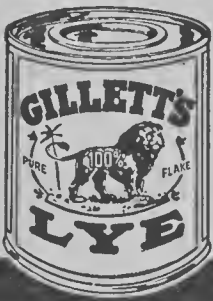
Bill Hamilton of Carrickfergus, Ontario keeps a herd of 70 purebred Holsteins, and sells to the fluid milk market. Naturally, low bacteria counts are of prime concern to Mr. Hamilton. Using a cleanser and a solution of Gillett's Lye, here is how he is achieving remarkably low bacteria counts, averaging between 3,000 and 6,000.



Preparing Solution. Mr. Hamilton prepares a solution of Gillett's Lye by dissolving two level tablespoons in a gallon of water. He uses this solution to clean and disinfect his milk pipeline. Lye causes no troublesome foam, and bacteria can't escape.



Rubber Inflations Stored In Solution until next milking. Lye solution kills bacteria on the surface and in the pores of rubber. It extracts fat in the pores, thus helps inflations keep shape and tension, resulting in longer life.



FOR FURTHER INFORMATION on the Lye Method of caring for milking machines and rubberware, write to Standard Brands Limited, 550 Sherbrooke Street West, Montreal.

IN REGULAR SIZE AND MONEY-SAVING 5 LB. CANS.

DAIRYING

(Continued from page 32)

special hitch on his dump truck which enables it to be hooked onto the back of the harvester and towed around the field. When the truck is full, it's unhitched and driven back to the farm. Some of the freshly cut forage is fed to the stock; the remainder is dumped into the silo. Later cuts are baled for hay. The 30 acres at the home place are used entirely as a pasture.

The bunker silo is a 30 ft. by 100 ft. by 8 ft. structure of pressure treated posts and planking, with a capacity of between 600 and 700 tons. Self-feeders are located at one end and in the middle. Dry cows use the end gate, while the milking herd feeds both ways from the center. The other end has a ramp for the dump truck.

The Palmer herd contains about 50 cows and heifers. About two-thirds are Holstein and the rest Jersey. They are sheltered in a loose-housing unit and milked in a modern, 12-place herringbone-style milking parlor. Plans for the latter were obtained from the New Zealand Department of Agriculture.

Bill hopes to eventually have a herd of 75 to 100 milkers to supply his growing producer-vendor business which serves North Kamloops. Because this area is under control of the B.C. Milk Board, Bill's milk is "pooled." Theoretically, he has to "buy back" the milk he needs to take care of his delivery route. This is only a paper transaction. Actually, he uses his own milk to serve his customers.—C.V.F.

Stimulus Increased Milk

A NEW ZEALAND experiment has shown that milk production can be increased and milking time decreased by a 30-second wash and hand stimulus of the lower udder and teats before milking.

It was found that the 30-second stimulus resulted in a 32 per cent increase in milk production for the test group, compared with the system where the machine was left to produce let-down stimulus.

The test also showed that the production of some cows is reduced very considerably when no pre-milking stimulus is used, but others were little affected in comparison. Cows with poor let-down response appeared to be those most affected in production by lack of stimulation. Unfortunately, it is impossible to distinguish readily in the field between cows which need pre-milking stimulation and those that can get along without it. But there's some hope that tests can be devised for field use.

According to the experiment, the reduced milking time for well stimulated cows more than compensated for extra time spent on stimulus.

Yard Hazards

CLEAN up your yard and reduce the chances of bruised udders, which can lead to mastitis, say dairy scientists of the Ontario Department

of Agriculture. Refuse that is thrown out in winter may often lie there until after seeding. Meanwhile, cows can slip and hurt themselves.

By-Product For Dairy Feed

by D. I. SCOTNEY



Cows find apple pomace palatable and take it straight from the hand.

AT Wilmot, N.S., F. L. Curry is one of the Annapolis Valley farmers who are learning the secret of using by-products from the farm as cattle feed. Apple pomace, the dried residue of solid matter left from apples after most of the juice has been extracted, provides a conditioner for wintering cattle, Mr. Curry believes, and he adds it to the ration of his dairy cows.

The feed, derived from a crop already grown on the farm, adds to the value of hay and short feed. The pomace can be worked into a feeding program on any farm, says G. P. Kapteyn, Middleton, who has had many years' experience in the Netherlands with cattle feeds and advises farmers on their feeding.

The average program calls for 3 to 4 lb. of dried pomace per day for milk cows, and 1 to 2 lb. for young animals, depending on age and quality of hay. It gives best results when fed separately.

Farmers in the Valley, says Mr. Kapteyn, have found the pomace to be a palatable, succulent feed for cows and sheep. It appears slightly more efficient as a milk producer than corn silage, and is comparable to beet pulp.

Wet pomace has been popular for some time among farmers living in the neighborhood of factories. But now, two large dryers at factories in the Valley area provide an ever ready supply of the dried by-products.

Needs Overhaul

MILKING machines work twice a day, 365 days a year, so don't neglect to take time to overhaul your equipment. Fred Hamilton of the Ontario Agricultural College suggests that you clean the vacuum lines; check vacuum gauges, control valve and pump. Compare the settings with those in your manual.

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for Canada's climate



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CAT-TEX HALF & FULL SOLES
At all fine shoe repairers

WORKSHOP

Trouble Light

For a handy trouble light, take a 2-battery flashlight, remove the reflector, cut the socket hole a little larger, and place a car bulb and socket into it. Next, drill a $\frac{1}{4}$ " hole at the center of the back cap, and run one end of a 5' or 10' electric cord through it. Fasten the cord to the socket on the reflector and put the flashlight together again. Attach a cigarette lighter plug to the other end of the cord, and then you can work the trouble light off the car battery. When not in use, wrap the cord around the flashlight case.—J.C., Man.



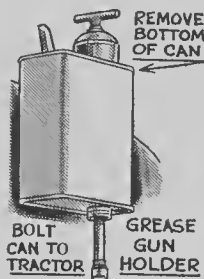
little holes will retain oil in them and make the level easier to see.—H.A.E., Sask.

Tip for a Tip

Puff a little powdered graphite into the recesses of an electric soldering iron when installing a new tip. The tip will be easier to remove later.—H.J., Pa.

Grease Gun Container

Keeping the grease gun on a tractor is quite a problem when working in a rough field. So I took an ordinary rectangular quart can, removed the cap, cut off the bottom of the can, and then inverted it and screwed it to my tractor.



It now provides a very handy container for the grease gun. For even greater convenience, I made and fastened other containers to the combine, swather and other equipment.—P.A.W., Alta.

Oil Gauges

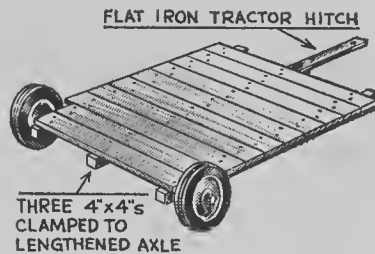
Oil gauges on most cars and tractors are hard to read, especially when fresh oil is added to the crankcase. If you drill $\frac{1}{64}$ -inch holes at the empty, half and full marks, these

Clamping a Bolt

When you have to clamp the threaded part of a bolt in a vise, protect the threads by first cutting a slot in a nut that fits the threads. Run the slotted nut up on the bolt, squeeze the nut in the vise, and the pressure will close the slot and grip the threads without damaging them.—S.C., Fla.

Bale Hauler

Take the running gear off a 2-wheel trailer. Cut the axle and weld an extra piece in the center to make



it wider. Bolt 3 heavy 4" x 4" beams to the axle with clamps, then nail boards or planks across the beams to form a platform. Add an iron hitch, and you have a handy bale hauler that can carry 100 bales or more.—E.L., Sask.

Painting Cupboards

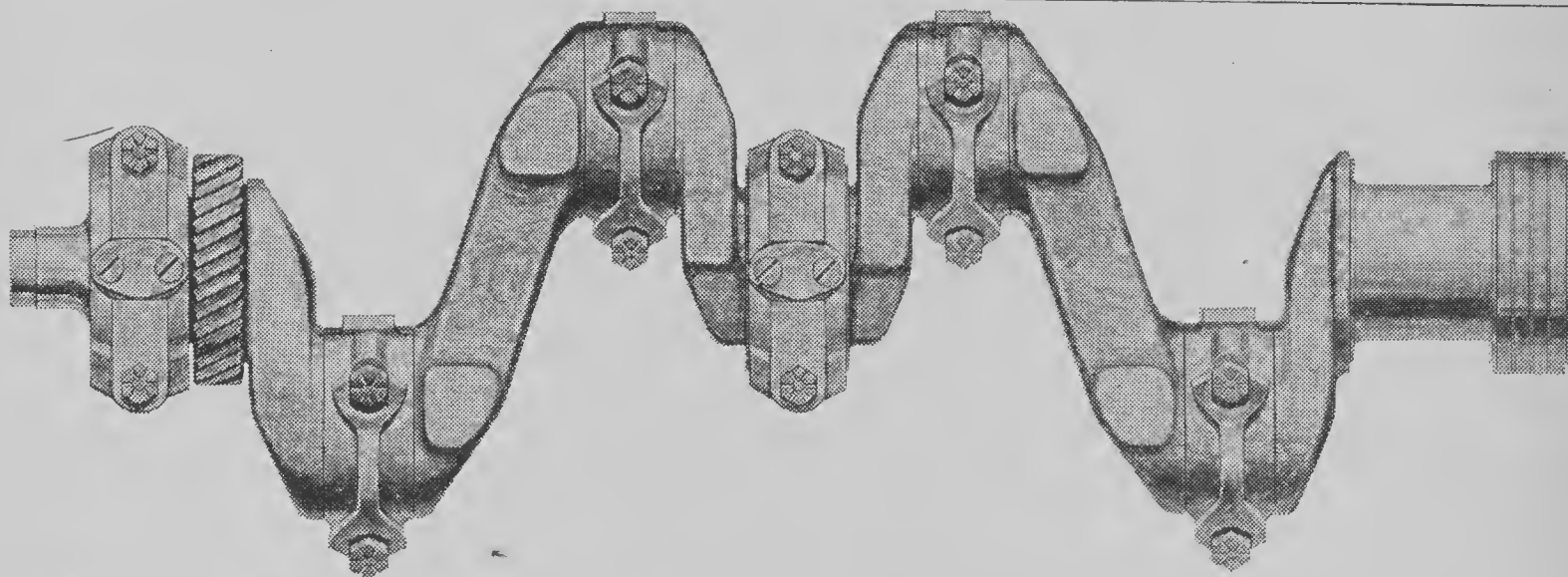
When you paint the underside of cupboard shelves, use an old mirror. Place the mirror on the shelf below the one you're painting and you will see what you're doing.—B.C., Calif. V



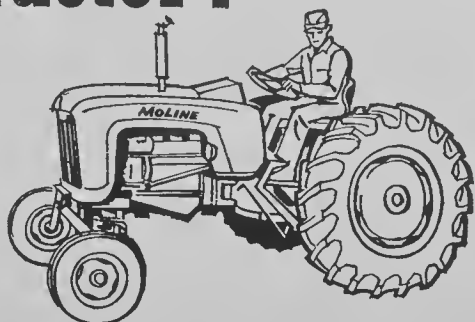
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- Famous Control Zone Comfort: deluxe seat, for example, is standard.
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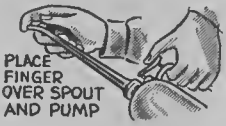
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If you have a pump-type oil can that won't work, don't throw it away. Place a finger over the spout and press the lever half a dozen times. Then take your finger away and press the lever a few more times. This should make the oil can work, but you may have to repeat the process two or three times.—G.G.D., Ont. ✓

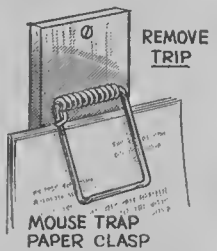


Salt Holder

I found a good way to keep a salt block off the ground, and keep it dry, was to set the block on an old gyrator from a washing machine. This won't move or tip.—S.G., Alta. ✓

Paper Clasp

Want to keep record sheets in your workshop or barn in neat order? All you need is a cheap wooden mousetrap like the one in the sketch. Remove the bait trip and the long wire used in setting the trap. Then drill a small hole in the wood, as shown. Fasten the trap with a small wood screw to the wall or stud, and slip your papers under the wire.—H.E.F., Tex. ✓

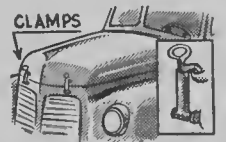


Window Shade

To prevent a window shade from blowing about when the window is open, attach a suction cup to the end of the string and press it down on the window sill. — G.LeM., Sask. ✓

Hood Clamps

The hood of my truck kept flying open, or rattling on rough roads. So I took two over-center fasteners, like they used to have on the sides of hoods, and secured one on each side of the front of the hood. Now I can clamp it down safely.—P.E.M.H., Alta. ✓

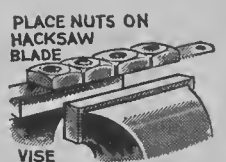


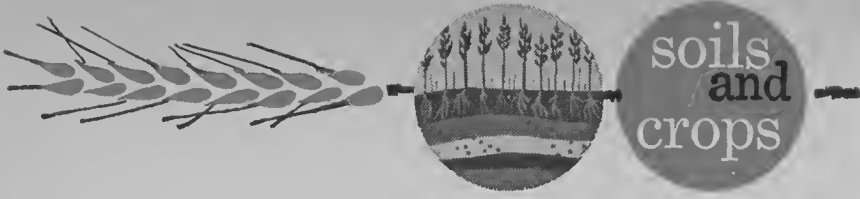
No Rough Edges

Avoid rough edges when sawing plywood by clamping it between two pieces of scrap lumber, then sawing all three together.—B.C., Calif. ✓

Threading Nuts

When I had a quantity of same-size nuts to thread, I found it tiresome to place each in turn in the jaws of the vice, thread a nut, and loosen the jaws again. So I devised a faster method. I took a hacksaw blade and laid the nuts on it, side by side, in a row corresponding to the width of the vice. I slipped the blade between the jaws, tightened the jaws on the nuts, removed the blade, and cut threading time by a third.—W.E.L., Sask. ✓





Begin Haying Earlier This Year

Early cut hay has the same milk-stimulating qualities as spring pasture. Cows will eat more of it, and require less grain

by DON BARON

IF you want to boast about your hay crop, talk about how early in the season you cut it. That's the advice of Doug Parks who says the way to measure the success of a hay program is not by counting the bales stacked in the barn, but by assessing the *quality* of the hay in those bales.

According to Parks, who is forage

extension specialist at the Kemptville Agricultural School in eastern Ontario, recent feeding trials have shown that the key to hay quality is *time of cutting*. Early cut hay is more palatable and more nutritious than hay that is left standing until it ripens into a fully mature crop. It's so much like spring pasture that two Ottawa Valley dairy farmers who



Donald MacIntyre of Finch says early hay helps cows maintain their production in early spring and late summer.

[Guide photo]

Herb Watson, last year's Ontario pasture champion, finds protein is much higher in early hay than in the late cut.



[Guide photo]



L.O.D.A. photo

Doug Parks chats with the Cardiff brothers of Renfrew, who started haying in May last year. They were the champions at the Ottawa Valley seed fair.

were feeding it in winter got complaints from their dairies that the milk had a grassy odor. Other farmers report that cows eating early cut hay in the stable are "loose," just as if they were out on pasture.

Parks says this early cut hay is so good that it can be compared to a 16 per cent dairy ration. It's worth twice, and sometimes three times as much per ton as late cut hay.

Cows will spot the difference at first bite. Offer a cow late cut hay and she won't eat more than 20 to 25 pounds a day. But give her choice early cut hay and she'll gulp down 30 or even 40 pounds. Some cows have been known to consume 50 pounds of good hay in 24 hours.

Look at it another way. A cow will eat enough early cut hay—hay that was cut the first week of June, or earlier—to produce 60 pounds of milk per day. If the hay was cut a month later, at the full bloom stage, she will eat only enough to produce 24 pounds of milk.

The quality of hay left to mature in the field, tapers off so rapidly that a cow offered hay cut in mid-July will eat less than 25 pounds of it. This will contain only 12 pounds of total digestible nutrients — not enough to enable the cow to maintain her body weight, let alone to produce milk. Any milk she would produce would have to come from other feeds.

(Please turn to page 38)

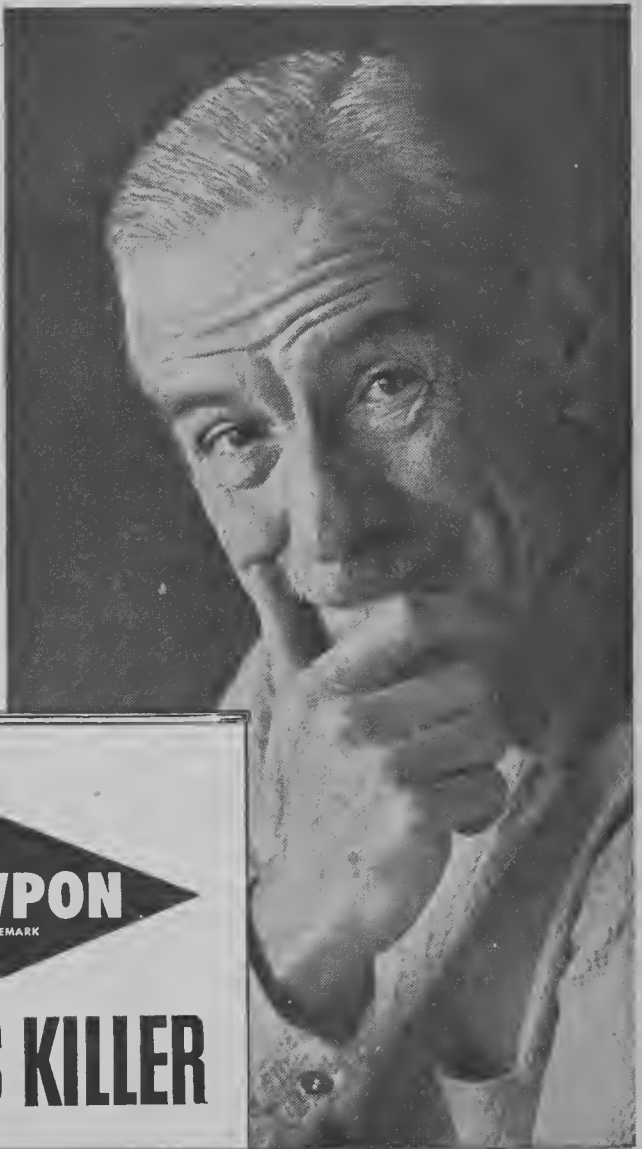
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FOR COMPLETE PROTECTION...USE THE DOW FAMILY OF FARM CHEMICALS

(Continued from page 37)

THE quality of early cut hay can be so good that Parks is making some startling revisions in his general recommendations about haying.

"We used to say: 'Make grass silage first thing in the season, and then make hay right afterwards.' Maybe we should scrap this idea," he says, "and start right off making hay if the weather will let us, and make all we can of it. Then, whenever the weather turns bad, we can put grass in the silo."

In fact, Parks feels early cut hay beats just about any silage for dairy cattle, certainly silage that has been made from grass that wasn't wilted. It doesn't contain a lot of water. As a result, a cow will consume more dry matter and meet most of her nutritional needs on hay alone.

When Parks talks about early cutting, he means it.

"The idea comes as a bit of a shock to many farmers at first," he



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Former champion, Hugh Blaine (r.) begins haying on the first of June.

says. He explained it to them at a Kemptville field day this way: "Early cutting means getting out the mower blades and sharpening them, at a time that seems crazy at first. The hay seems to be only half grown. Maybe you would be ashamed to be seen cutting hay that is so short and green. You won't get as many bales as if you waited, either. But you don't really lose a thing except a lot of useless fiber."

"Here's why," he told them.

"Early cutting assures quick recovery of the plants, and an early aftermath. The stand will be ready for a second cut of hay, or for pasture, within 4 weeks, if you cut early. If you delay the first cutting until June 20 or so, it will be 6 weeks before aftermath is ready.

"Of course, a 3-ton crop would impress a fellow's neighbors," he admitted, "but it will be tangled and tough to handle, and take longer to dry and cure. It will be more likely to get a shower of rain, too. In harvesting a lighter early crop there are no heavy bunches of wet hay to clog up the mower or conditioner or baler. There will be no broken shear pins to interrupt the



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SOILS AND CROPS

work either. In other words, there will be fewer stops during each of the 'haying operations. Of course, that new implement, the hay conditioner, that is winning popularity today, is made to order for early haying.

"As a result, it should be possible to take off both the first and second cuts—two crops of about 1½ tons each, with no more work or time than it would take to harvest 'one 3-ton crop," he concluded.

WHAT about rainy weather interfering with early haying? "Contrary to the popular belief that early season weather isn't reliable, the weather in early June is as suitable as any," Parks says. "Last year, the best week for haying around Kemptville, was the first full week of June. The weather records reveal that over a period of years, early June is as good as any time for haying around here."

Just how early should you start haying?

"Early June is just about right in the Kemptville area," says Parks. "In southern Ontario, it would be even earlier. Then, alfalfa will show the first tinge of color from the blooms. It will be in the one-tenth bloom stage. On well-drained, fertile land, warm weather in May can bring the growth along, even in the Kemptville district, so that it will be

ready to cut before the month is out."

The idea of early haying is catching on fast with farmers. Parks himself practises what he preaches. He has a farm of his own, and he cut his hay during the first 10 days of June last year.

Cardiff Brothers, who have a big dairy farm at Renfrew, and take their forage program seriously enough that they were named pasture champions a couple of years ago, are among the first farmers in eastern Ontario to begin haying. They started in May last year. A sample of their hay entered in the 1961 Ottawa Valley Seed Show won first prize. It was second-cut, grass-legume hay. Another sample of their second-cut, mixed legume won its class as well.

Farm Manager Briden Clarke of the Collins Bay Penitentiary makes about 30 to 35 thousand bales of hay a year. With a big herd to feed, and costs to be kept down, he says early haying is vitally important. His carefully planned schedule calls for a start to haying before the end of May. He tries to seed his corn about May 24, and then to make a bit of silage from his early fields of brome. Then he starts haying and plans to complete the job by the middle of June if possible. He has a conditioner and an oil-fired hay drier to speed along his haying program.

Another pasture champion, Hugh Blaine of Mountain, who puts up 60 to 80 acres of hay a year, has caught the early cutting bug too. He starts haying about the first of June. ✓

Safety With Chemicals

HERE are precautions to take when working with most insecticides and rodenticides, and some herbicides, as recommended by the Brandon Experimental Farm, Man.:

1. Follow directions. Avoid breathing dust, spray mist or vapor. Wear goggles and gas mask when so instructed.
2. Wear protective clothing and rubber gloves when necessary.
3. Wash any spillage promptly from skin or clothes.
4. Don't smoke or eat until face and hands have been washed after working with dangerous material.
5. Keep all chemicals and compounds out of reach of children, farm animals and pets. ✓

High-Yielding Barley

ONTARIO farmers should grow York if they want the highest yielding feed barley, according to Dr. W. E. Tossell of the Ontario Agricultural College. This variety is susceptible to loose smut, but loss from the disease is overcome by the extra yield from York. ✓

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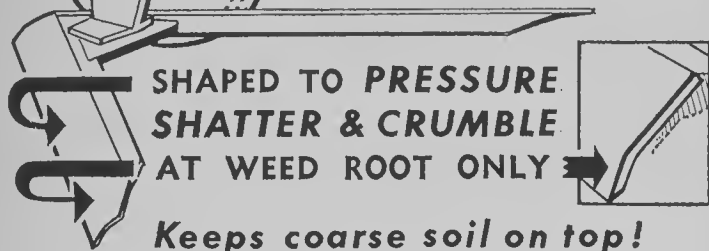
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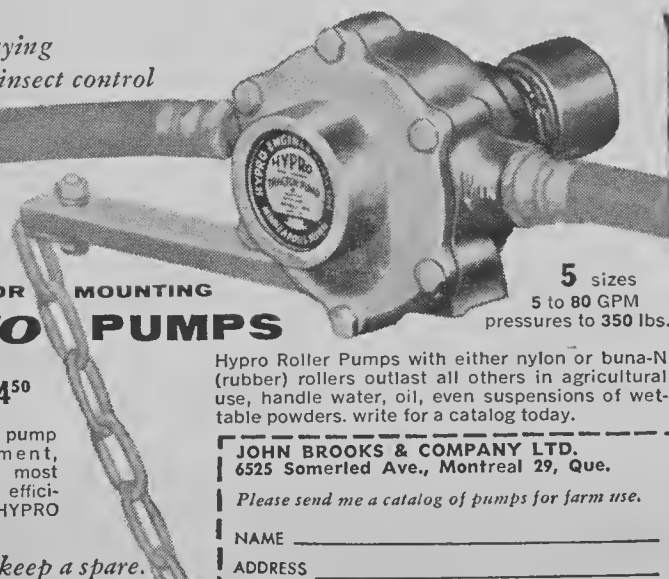
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SOILS AND CROPS

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RED clover must be cross-pollinated by insects to produce a good seed crop. One of the best pollinators is a species of long-tongued bumblebee that can reach right down into the flower and extract nectar. While doing this, it picks up pollen which is carried to other flowers in the field.

Because they live in colonies, bumblebees can be collected in a wild habitat and moved to a farm

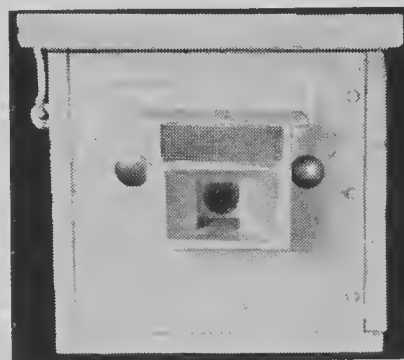
obscured the boxes, or spiders spun their webs across them.

Marauding skunks in search of honey were one of the worst enemies of artificial nests. The researchers got around this menace by wiring the boxes firmly to posts or trees so they couldn't be tipped over. Spilled honey sometimes attracts other bumblebee enemies such as the harvester ant.

Bumblebees don't store honey for winter. They collect enough nectar and pollen to feed each year's brood only, plus a bit extra for days when foraging is difficult. The only overwintering bees are fertilized queens, which hibernate in soil cracks or old rubble piles.

In the spring, the queen searches for a nesting site, sets up a honey pot inside and fills it. Then she makes a mound of pollen, lays her eggs on this and covers them with a cap of wax. When the worker bees develop, they collect food and the queen stays home to produce more workers. In the fall she stops making workers and concentrates on new queens and males to complete the cycle.

WHEN collecting bumblebee colonies, spread the boxes out well and paint them various colors. Bees recognize yellow, blue, blue-green and ultra-violet. Dr. Hobbs and his associates used blue, yellow



[CDA, Lethbridge, photos]
Celluloid door swings inwards only.
Once inside box, bees can't get out.

in artificial nests. If handled properly, this extra labor force can greatly increase seed yields and profits.

To study methods of wild bee management, Lethbridge Research Station sent entomologist Dr. Gordon Hobbs and assistants J. F. Virostek and W. O. Nummi to collect bumblebee colonies in southern Alberta. The trick here is to get bumblebee queens looking for a good nesting site to establish a colony in portable boxes.

As queens normally take over deserted mice nests, the researchers decided to set out boxes in the fall to attract mice, with 1 1/4" entrance holes and lined with ruffed-up flax straw—a common nesting material of field mice. The following spring, the mice were evicted and thin metal plates 2" square with 5/8" holes, were nailed over the original holes to keep them out. Where smaller mice still got in, squares of 3/4" plywood were used instead. Although the hole size was kept to 5/8", this did the job.

Later, it was found that easier-to-handle upholsterer's cotton made good nesting material. The researchers also discovered bumblebees would accept a good nesting site even if it hadn't been previously occupied by mice. This makes the task much easier.

THE site for the boxes has a strong bearing on the number of bee colonies "captured." Best results were obtained in fallow backyard gardens, beside prairie fence posts, and around aspen tree groves. No nests placed in irrigated fields were accepted by the bees, possibly because heavy grass often



Bee collection boxes placed in aspen grove by the Lethbridge researchers.

and white boxes, but soon found that blue made it hard for bees to see the opening.

Boxes of the same color should not be placed side by side, particularly after colonies have been moved. A queen bee entering the wrong colony will duel to the death with the resident queen and the colony will be lost.

A colony should be ready for transporting after the first brood (about 10 bees) has developed. In moving colonies from their natural

SOILS AND CROPS

habitat to the farm, get *all* the bees of each brood. Waiting until after dark to seal the entrances doesn't always ensure that no bees will be left behind. Some foragers remain on flowers overnight. Losing part of the work force is a shock to the colony and it develops more slowly after that. Often the queen has to forage for nectar at the new location and is open to attack by enemies.

Best way to ensure against brood loss is to seal the hive before the move and install a bee trap to catch latecomers. This consists of a one-way door of some transparent material such as celluloid. The bees can see the opening and enter, but can't get out again. If the brood is moved with its working force intact, the colony will do well at the new location.—C.V.F. ✓

Treatments for Gray Wooded Soils

by PROF. J. A. TOOGOOD

Head of Soils Dept., University of Alberta

LAST summer, a stone cairn was set up on Ben Flesher's farm at Breton, Alta. Ben farms a gray wooded soil, and in 1930 the University of Alberta soils department laid out plots on his farm to check the value of fertilizers and crop rotation. The plots have been carried on ever since, and the cairn marked their 30th anniversary and honored the founders of the plots, Dr. F. A. Wyatt and Dr. J. D. Newton.

The soil type on these plots is called Breton silt loam. The native vegetation was mostly poplar and

now when cleared and cultivated, the soil is ashy gray in color with patches of darker soil. Similar gray wooded soils are found in all three prairie provinces. Farmers located on such soils find them low in fertility and often difficult to handle. They tend to cake and harden and it is difficult to prepare a good seed-bed. Crop yields are usually low and quality poor.

Data from the Breton plots show a number of ways of improving yield and quality of crop on such soils. Some of the lessons learned, may be summarized as follows:



A fertilized hay mixture (left) is compared with an unfertilized stand.

- Use farm-yard manure. Applied at 22 tons per acre every 5 years, this has more than doubled the yield of grain and hays on the plots and improved the tilth of the soil.

- Use commercial fertilizers. The Breton soil lacks nitrogen, phosphate and sulphur. Not all gray wooded soils lack sulphur, but this one is so deficient that hay yields on unfertilized plots have averaged only ½ ton per acre. Fertilizers supplying sulphur, along with nitrogen and phosphate, have produced average hay yields of over 2 tons per acre. Grains grown in rotation have also shown good average gains from fertilizers. Here are the yields, averages for 26 years:

Fertilizer	Wheat	Oats	Barley
None	14.1	26.7	12.7
16-20-0	32.2	48.7	24.2
21-0-0	30.8	50.7	26.5

- Use crop rotations, including grasses and legumes. Nothing could be worse than straight grain farming on these soils. They need to be built up with good crop rotations. Plots at Breton, where grasses and legumes have been grown, show improved tilth and increased yields.

- Grains and hay from good rotations, receiving fertilizers, have better feed value. Quality is improved as well as yield by good soil management.

(Please turn to page 42)

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SOILS AND CROPS

(Continued from page 41)

The plots have also shown some important negative results:

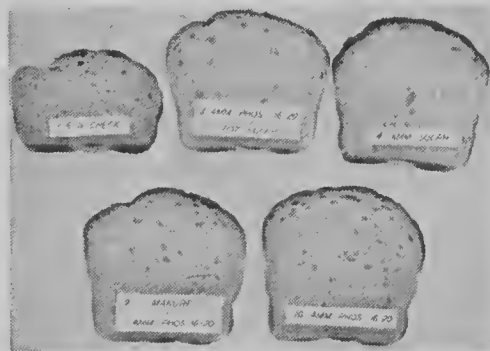
1. Although slightly acidic (or sour) the plots have shown very little response to lime.
2. Nitrogen by itself, as in 33.5-0-0, has been of little value on this soil. Combined with sulphur, as in 21-0-0, yield increases have been very profitable.
3. With no sulphur present, 11-48-0 has been poor. Note that 16-20-0 contains 14 per cent sulphur.
4. Fertilizers by themselves are not the answer on these gray wooded soils. Good crop rotations too are not the solution. Both fertilizers and rotations must be used together.

In terms of dollars and cents, there is probably no better investment for a farmer on gray wooded soil than fertilizer when coupled with a good rotation. On the Breton plots the best fertilizer has returned \$20 for each \$1 invested in fertilizer. In fact without fertilizer it is difficult to see how such soils can be made to produce efficiently.



Ben Flesher of Breton, Alta., beside a cairn marking 30 years of testing.

Now is the time for farmers to review their soil management program and bring it up to date. A soil is the basic resource on any farm and should receive the best of care. Data from the Breton plots show the value of proper soil management—manure, grasses and legumes, and the right fertilizer.



Loaves show effect of fertilizer. Top (l. to r.): 1-5-11 check, ammonium phosphate plus potassium sulphate, ammonium sulphate; bottom: manure plus ammonium phosphate, and ammonium phosphate.

Millet for Emergency Pasture



[Guide photo

Frank Roach (left) and ag. rep. E. A. Eagles sizing up a stand of millet.

FAVORITE emergency pasture crop of Sussex, N.B., dairy farmer Bev Roach and his son Frank is Japanese millet. The Roaches have grown it every year for over a decade and find that 1½ acres of a crop, standing 6 or 7 feet tall, will last their 20-cow Ayrshire herd for several weeks each fall.

Roach seeds it in mid-June at 15 lb. per acre, through the grass-seed box of his drill. When pasture gets short in the fall, he heads for the

millet with the binder, cuts and stooks enough for 3 or 4 days of feeding at a time. He throws some to the cows each night and morning along with their mill feeds to save his winter's hay supply.

Forage crops scientists Dr. Bill Warren, of the Nappan Experimental Farm, agrees that millet is a good emergency crop. He says it will recover rapidly if grazed off, and if left standing until frost hits, it doesn't dry as badly as some crops.—D.R.B. V

**"For Victory Over
Wild Oats, Spray Them
With CARBYNE
When They Are In
The 2-Leaf Stage"**



**"I was very pleased with the results obtained and
plan to continue using CARBYNE"**
Farm Trial No. 5208 (Barley)

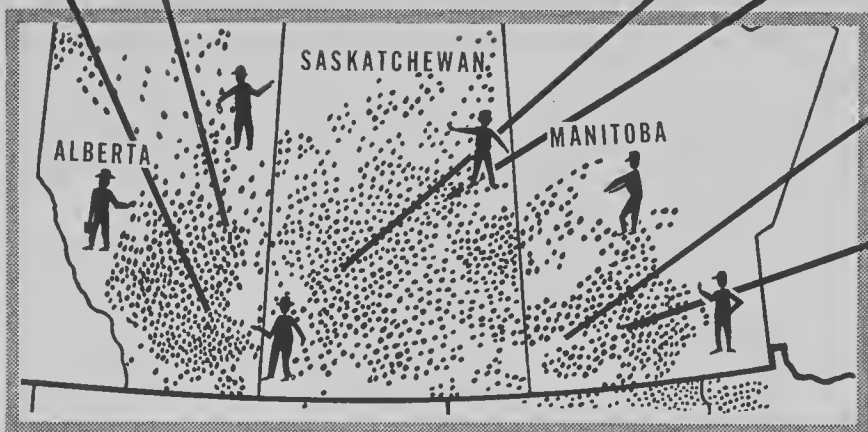
**"Pleased with CARBYNE control; it has a definite
place in any wild oat control program"**
Farm Trial No. 8013 (Barley)

"Wild oat control in wheat very striking"
Farm Trial No. 7406

"She's a great stuff!"
Farm Trial No. 7238 (Wheat)

**"Was ready to plow-down
crop when we decided to use
CARBYNE. Result—saved crop"**
Farm Trial No. 7202 (Wheat)

**"Satisfied; savings in labor
and easier cultivating"**
Farm Trial No. 6825 (Beets)



Carbyne's gigantic proving ground covered much of the northern United States and Western Canada. Dots indicate actual locations of tests by farmers in Canada. Comments above are typical of the enthusiastic reaction of Carbyne users. In these tests, Carbyne provided satisfactory wild oat control on 92 out of 100 farms treated!

Hurry! Now is the time to get ready to

Stop Wild Oats With Carbyne*

**Don't miss your chance to
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with farm-proven Spencer Carbyne:**

TESTED EXTENSIVELY last year, Spencer Carbyne, the post-emergence wild oat herbicide, proved satisfactory on 92% of the farms treated. Because of these outstanding results, the demand for Spencer Carbyne may be overwhelming this Spring. Why risk being left out?

There is still time to reserve your Carbyne supply. Put your name on your dealer's "Preferred List for Carbyne" right away!

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Is Ready To Apply Carbyne**

While no special equipment is required to apply Spencer Carbyne, it is important to check the condition of your regular spray equipment just as soon as you can. Only by making needed adjustments and repairs ahead of time can you be ready to spray wild oat plants at the precise growth stage when Carbyne will be most effective. Your dealer can provide complete information about readying your sprayer for Carbyne application.

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And Other Major Crops:**

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After cultivating and seeding, check your fields every day so you will know the exact areas where wild oats are emerging. Then, determine the most effective time for application by watching the growth stages of the wild oat plants.

Remember: For maximum effectiveness, Spencer Carbyne must be applied when the majority of the wild oat plants are in the 2-leaf stage. Make sure to have your Carbyne supply on hand and your sprayer properly adjusted before that time arrives!

Just follow the application directions furnished with your Spencer Carbyne, and you can stamp out your 1961 wild oat problems with a single spraying!



These important growth stages are your guide to effective wild oat control with Carbyne. Check fields frequently after seeding. Apply Carbyne at the 2-leaf stage!



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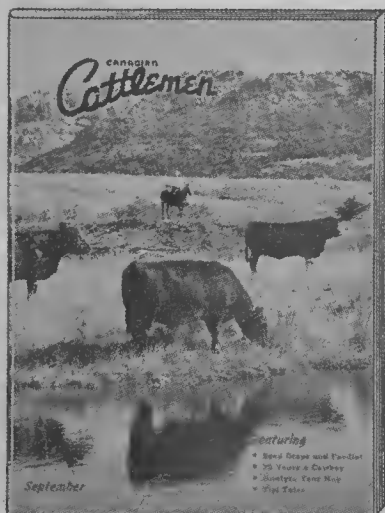
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They Show Landscaping Is an Art

HOW many times have you looked enviously at a home surrounded by attractive trees, shrubs and flowers? "I sure wish I could afford to fix my place up like that," you probably reflected.

But of course you had to put *that* idea out of your head. You know the

of the bigger nurseries will provide a free landscape development plan for your home if you buy your stock there. Some will even send a man up to stake out the location of the various trees and shrubs you purchased. The actual digging and planting you do yourself. That way you get a professional-looking job at very little extra cost.

A LANDSCAPE designer is trained for this work. He can see the overall picture. He notes the trees already planted, the direction the house faces, its color and the size of the yard. Details such as the height of windowsills, location of walks, garage and clothesline receive his attention too. By doing this he avoids placing trees which will grow to block your windows or overhang



Mr. and Mrs. J. Grant chose to make their switch to planned landscaping.

home in question was landscaped by a professional, and this costs money. Instead, you ordered a few cheap plants, placed them at random around the yard and hoped they'd turn out all right.

And they did too. At least each plant developed into a reasonable replica of its species. Yet the overall effect was disappointing. If you'd only realized those bushes in the center were going to grow so tall you'd have placed them at the sides, or maybe vice versa. Somehow they still managed to look like — well, like a bunch of plants placed at random around the yard.

What you didn't realize was that a very little extra money and planning would give the effect you were after. Your property would have both beauty and originality. Most



[Guide photos] Gladioli share the Grants' front yard with cotoneaster and mountain ash.

the sidewalk. He also knows what colors to use, and whether shade trees are needed. The result is a balanced look that amateur planners hope for but seldom achieve.

Mr. and Mrs. Jim Grant, who farm east of Lacombe, Alta., tried landscaping their own front yard a few times, but it never seemed to work out properly.

Said Jim, "This time we decided to go to the nursery and get it right."

The Grants' plan called for a cotoneaster hedge and row of mountain ash trees at each side of the yard. Mrs. Grant wanted more room for her gladioli, so a flower bay was added at the front of the house.

In the same area, the Leslie Groses built a new home at their Pleasant Valley Acres farm about 10 years ago. They decided to seek professional help with the landscaping.

"The average buyer doesn't know the height of various shrubs or the



Beds bordering the lawn of the Grose home have shrub and flower mixture.

HORTICULTURE

best place to locate them," Mrs. Grose said. "We had our nursery stake out where they should go and did our own planting."

More and more farm people are going in for planned landscaping. Some get the whole job done at once. Others have a plan made then add trees and shrubs year by year as they can afford them. All agree it has paid to work to a plan instead of putting plants in at random. — C.V.F. ✓

Eight Hardy Pears for Prairies

by PERCY H. WRIGHT

THE Department of Horticulture at the University of Saskatchewan, then headed by Prof. C. F. Patterson, introduced and named eight varieties of hardy pears, all descended from *Pyrus ussuriensis*, the wild pear of Manchuria, to pollen of Bartlett or Aspa pears.

David, grown on the university grounds at Saskatoon under dry conditions, makes fruits that measure 2½" by 2¾", ripening in late September. It is of good quality and the flesh does not break down quickly.

Phillip is of the same size and date of ripening, or a little earlier. It is described as "very fair in quality, and holds up fairly well."

John is larger, 2½" by 3", and also ripens in late September. "The skin is thin and yellows well before the flesh becomes soft. The quality is good."

James is 2½" by 2¾", and is also of good quality. The flesh is "very fine" in texture, and "the skin yellows beautifully before the fruit breaks down."

Andrew, earliest of the eight, is 2" by 2", ripening in early September. It is "of fair to good quality," but breaks down quickly, that is, is not a long-keeper.

The other three varieties are named Peter, Simon, and Thomas.

All these pears have been hardy, and have thrived under extremely dry conditions at Saskatoon. They have been free of fireblight. They are expected to supersede all the hardy pears hitherto grown in the Prairie Provinces, chiefly on the ground of quality. ✓

Protection for Lettuce

THE 6-spotted leafhopper can limit production of head lettuce by spreading the aster yellows disease. Researchers at the Canada Department of Agriculture's Winnipeg station recommend controlling the insect with malathion at 3 pints of 50 per cent emulsible concentrate in at least 15 gallons of water per acre. It should be applied twice a week until 5 days before harvest, and at a pressure of at least 60 p.s.i. for head

lettuce. Adjacent weeds should also be sprayed or destroyed. ✓

Recipe Plants Like

HERE is a general potting mixture suggested by H. Bailey of the Ontario Department of Agriculture:

- 7 parts compost or good garden soil;
- 2 parts organic matter, such as well-rotted leaf mold or peat;

- 1 part well-rotted manure;
- 2 parts building sand.

A mixture low in fertility may be improved by half a 4" pot of complete fertilizer (5-10-13) and half a 4" pot of superphosphate to each 2½ bushels of soil. ✓

Plastic Pots Do Just as Well

HOUSE plants grow just as well in plastic pots as in porous clay pots, according to Dr. A. P. Chan of the Plant Research Institute, Ottawa.

When plants fail in plastic pots it is usually because the grower forgets that these pots retain water much longer than clay pots do. The result is overwatering, which leads to root rot and other soil diseases.

On the other hand, clay pots present problems: growth of algae, appearing as a green, slimy scum on the outside of the pot; and the need for extra water to compensate for evaporation from the pot surface.

Plastic pots do not have these disadvantages. They are also lighter, more colorful, and available in attractive designs. ✓

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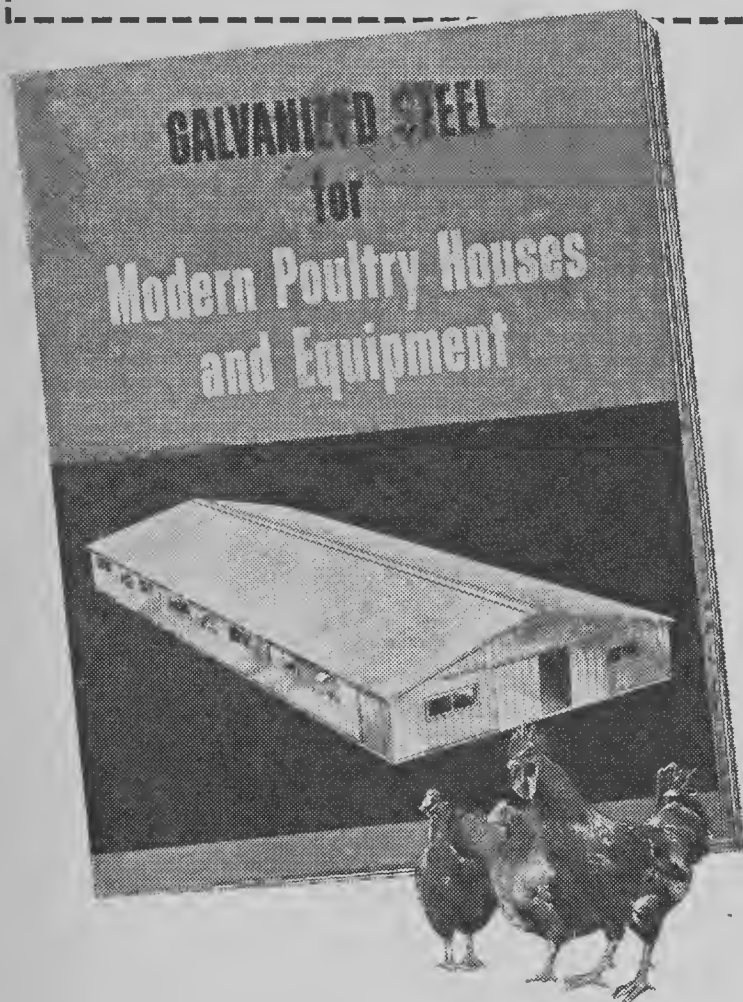
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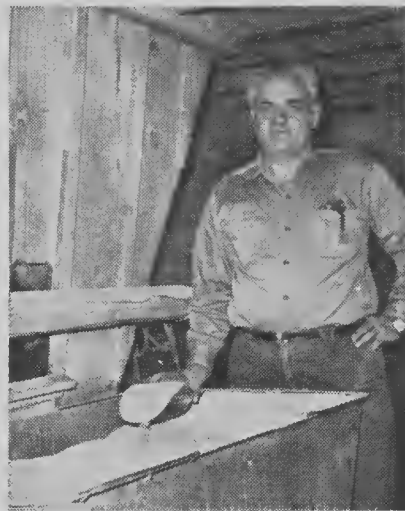
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Poultryman In the Dry Belt

ELGIO FLORITTO keeps about 9,000 white Leghorns in a 3-storey laying house near Kamloops, B.C. He uses the multiple-cage laying system, with 25 birds to each 4 by 5 foot cage. This allows about three-quarters of a square



[Guide photos]
Eligio Floritto with push cart used to fill feed troughs along the cages.

foot per bird. The wire floor of each cage slopes gently to allow eggs to roll to the front for easy collection.

Does raising birds in close confinement increase the chances of epidemics such as Newcastle disease? Not if you follow good sanitation practices, Eligio maintains.

"We've had no big disease problems in this dry area," he said. "But we do have to debeak our birds to stop cannibalism."

Feed for the Floritto hens is bought as a complete ration from a local feed mill. A grain auger lifts it to a storage room in the center portion of the top storey from where it flows by gravity to each level. Feed troughs located at the front of every cage are filled daily from hand carts wheeled down between the rows. Waterers are kept filled



Auger carries feed to the top floor.



Because eggs roll to the front, collecting them from the cages is simple.

by an automatic float valve system. Manure, which collects on the floor under the cages, is sold to a brewery for use on nearby hop fields.

Eligio Floritto used to deliver milk in the Kamloops area. He started his egg enterprise in 1953 with a nucleus flock of about 200 hens. Eggs are candled and graded on the farm then sold to his own customers in town. Eligio isn't in favor of deficiency payments to egg producers. He didn't even register for this help. Such plans only serve to keep inefficient operators in business, he believes.—C.V.F. ✓

Maintain Quality of Eggs

HERE are a few simple rules which Don Luckham of Western Ontario Agricultural School says will help to boost egg quality:

- Young hens are best. Interior egg quality and shell thickness decrease as the hen's age increases.
- Collect eggs at least three times daily, and four times in warm weather.
- Cool eggs to 55°F. as quickly as possible, and pack cooled eggs in pre-cooled egg cases.
- Sell eggs at least twice a week, if possible.

Similar advice comes from J. H. Strain of Brandon Experimental Farm, but he adds the following points:

- ✓ Choose layers with characteristics best suited to your conditions. Random sample egg laying tests will help you select the right strain.
- ✓ Confine birds to the laying house at all times. This helps to control disease.

✓ Eggs quickly take on odors and flavors, so don't store them near onions, kerosene, or other such products.

✓ Have an ample supply of oyster shell for layers at all times. ✓

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46 makes dollars and sense, even for the farmer who has *as little as two days baling a year.*

P.S. Interested in a deal that will make your mouth water? Then see your IH dealer, now —*he has it!*

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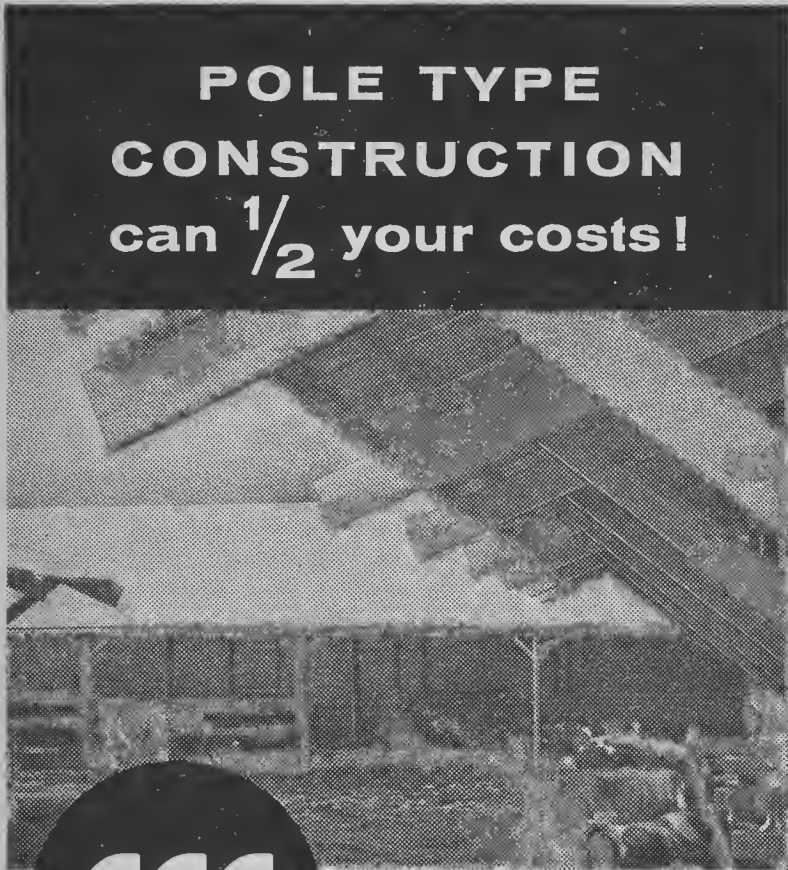
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POULTRY

Good for Mink

THEY'RE finding in Prince Edward Island that chicken waste can replace half of the horse meat used in standard mink rations during the growth and furring seasons. Dr.

C. K. Gunn of the Experimental Fur Ranch at Summerside says they have noted a significant saving in feed costs when chicken waste comprised half the red meat in the ration, and fish replaced a further 20 per cent of the meat. V



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Litter is drier and hens are cleaner since Edison Forrest installed the fans.

Fans Are Answer To Poor Ventilation

Fans are doing a job where window adjustments failed. But insulation made it possible

EDISON FORREST installed fans in his poultry house recently and he says now it's one of the best moves he has ever made. He wasn't in trouble before doing it. Quality of his eggs was high. But there were periods when dampness in the pens resulted in a few soiled eggs, and gave him some concern about flock health. Once the fans were installed, air and litter in the pens stayed dry all the time.

Forrest, who has a 9,000-bird flock at Hensall in Huron County, Ont., houses some of his hens in an old barn that he remodeled a few years ago, the rest in a newer building. He feeds about 100 steers a year, as well.

One big reason why he installed fans was because he is becoming more concerned than ever about egg quality. "Only way poultrymen will get consumers eating more eggs is to give them better eggs," he says. He also figures the best way to maintain his own market is to produce special quality eggs.

Forrest can point to several practices that he believes help to maintain the quality of his eggs. He uses wood shavings for nesting material because he believes it is better than straw. He adds fresh shavings to the nests every couple of weeks too. He gathers eggs several times a day and washes them immediately after gathering. His eggs are picked up twice a week by refrigerated truck to be taken to the grading station.

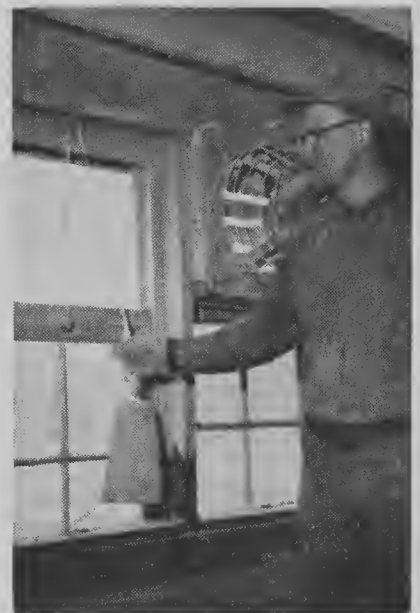
It was a simple job for Ed Forrest to get adequate ventilation by adding fans. Reason was that he used plenty of insulation in his buildings. All the walls have 6 inches of shavings in them.

"Cheap, makeshift buildings are a waste of money," he says. That's why he did a thorough job when he remodeled.

THIS philosophy falls right in line with that of engineer Ross Milne of the Ontario Department of Agriculture, who says, no poultryman can afford to have a cheaply constructed building.

"Ventilation is essential," says Milne. "Lack of sufficient ventilation results in lower feed efficiency, wet litter, fluctuating temperatures, and even to deterioration of the building and increased disease problems."

According to Milne, the purpose of ventilation is to get rid of the moisture that is given off into the air by the birds. If air coming into



[Guide photos

Fans give winter ventilation, and in summer windows are quickly adjusted by these homemade concrete weights.

the pens from outside is to be able to take up this moisture, it must be warmed up. To make this possible, the building must be well insulated. As a result, many poultrymen who want to gain any benefit from adding fans must first insulate their buildings.

Referring to poultrymen who are planning to construct new buildings, Milne says a well-insulated and ventilated one will cost only 15 to 20 per cent more than an uninsulated one. That building will more than pay for itself in better feed conversion, lower mortality, and less medication expense.—D.R.B. V

FARMmechanics

A Well Or a Hole?

THE difference between a water well and a hole in the ground may depend on whether the well driller knows his job. The Saskatchewan Department of Agriculture advises you to check a driller's rates, his record of successful wells, and the extent of testing he will do after drilling. Do this before he drills your well.

Make inquiries from well owners who have wells producing successfully for several months. Also, make sure the driller has a baler or pump for testing the well to see if there is an adequate water supply for your needs. He should be capable of placing a well screen too.

The two methods for sinking a well — boring and drilling — can be summarized as follows:

Boring cannot go below 150 ft.; it is difficult to obtain a large supply of water because development costs are high; it is difficult to bore through water-bearing gravel or sand. But there is a larger water storage space in seepage wells and it is possible to detect smaller supplies of water.

Cable-tool drilling is slow and therefore costly for exploration; holes generally must be cased as drilling proceeds. But there are no depth limits with this method; it is possible to drill through gravel or boulder formations more easily than by rotary methods; and it is always possible to know what type of formation the drill is going through.

Rotary drilling can by-pass a thin water seam unless the operator is careful, because drilling mud will seal it off; crooked holes are common; it is hard to determine what material is being drilled, and accurate sand formation samples are not available for sieve analysis. But the rotary rig is faster where water depth is known, and so the cost of drilling may be less; casing is not needed while drilling, and there are no depth limits.

The type of drilling depends on the geology, the amount of water required, and the drillers that are available.

Keep Tractor Right Side Up

TRACTOR upsets cause a tragic number of deaths and injuries. The Ontario Department of Agriculture lists seven ways to deal with the danger of overturning:

1. Stay at a safe distance from ditch and creek banks which might cave in.
2. It's risky to exceed 4½ m.p.h. in field operations, especially on stoney or rough ground. Go slowly when crossing ditches or turning.

3. A grabbing clutch, or improperly adjusted brakes, can upset a tractor. Keep controls in good condition.
4. Improve the stability by spacing rear wheels out as far as operations permit. Load the tires three-quarters full of calcium chloride solution.
5. Don't try to drive a tractor up excessively steep grades.
6. Engage the clutch slowly when pulling out of ditches or up steep slopes.

7. If possible, lock brake pedals together when traveling in road gear.

Burnt Points

IF there's constant burning of distributor breaker points on your tractor or truck, and yet the points are adjusted properly, the regulator setting is right, and the condenser is of the correct capacity, check for an oil leak at the distributor base bushing.

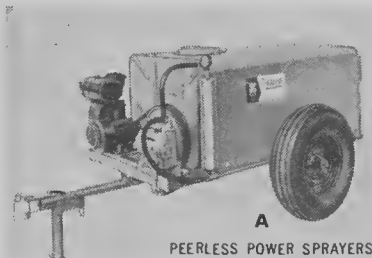
Burnt points contribute to misfiring spark plugs, and they may be caused by oil bleeding past a worn bushing onto the breaker points. The wrong grade of lubricant, or excessive amounts on the distributor cam lobes, are other causes of this condition.

Important year 'round aids to Clean Farming

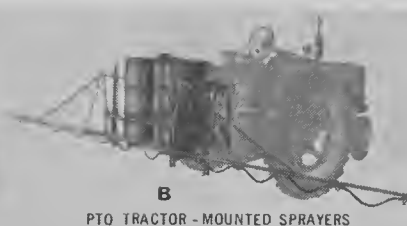
(and more profitable)

If you could *harvest* the bushels or bales stolen by plant insects, disease and weeds—if you could *sell* the meat and milk you lose to flies, grubs, and disease—you could pocket extra profits. You *can* have this extra profit by stressing *your clean-up* program in fields, on crops, on stock, in buildings. The rules are simple: use the right pesticide at the right time and *apply it right*. That's where Hudson's

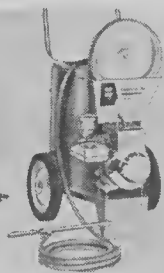
57 years of providing farmers with the right application equipment helps you. You see on this page examples of Hudson farm sprayers and dusters, each designed to make it easier to apply pesticides for best pest-killing results, in less time, without waste. To get the extra profits clean farming can give you, choose Hudson—built to last, to serve long at low cost, to save time and work.



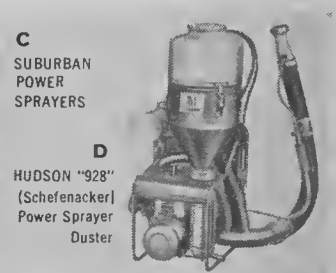
A
PEERLESS POWER SPRAYERS



B
PTO TRACTOR - MOUNTED SPRAYERS



C
SUBURBAN POWER SPRAYERS



D
HUDSON "928" (Schefenacker) Power Sprayer Duster

A,B. PEERLESS POWER SPRAYERS. A "must" for farm clean-up. Up to 400 lb. pressure to cut encrusted, germ-hiding dirt off stock floors and equipment—to drive spray into hides for grub control. Mechanical agitation and piston pumps to handle whitewash, other building sanitation. Up to 250-gal. capacity with 20- or 30-foot booms for fast field clean-up in forage and row crops. Endurall cylinders (only a diamond is harder), Endurall nylon valves, choice of Endurall-coated, copper-bearing or stainless steel tanks, many other features. 50 to 250 gal., 5 or 10 gpm., on wheels, trailers or skids; or tractor-mounted. Also MATADOR®,

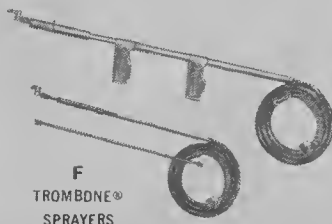
with power-jet agitation, 15 to 100 gal., 3 gpm., 250 lb. pressure.

C. SUBURBAN, COMANDO®. Compact 12½ and 10 gal. power sprayers. Just right for clean-up and sanitizing in dairy barn, hog and poultry houses, tight quarters, and lawn and garden.

D. HUDSON "928" (SCHEFENACKER) Mist Sprayer and Duster. Portable and powerful, blasts liquid concentrate or dry powder at tornado velocity for quick, sure pest control on small fruit, vegetables, cotton, tobacco. A "coming" machine for farm pest control.



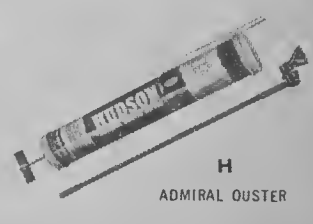
E
COMPRESSION SPRAYERS



F
TROMBONE® SPRAYERS



G
HYDRA-GUN® SPRAYERS



H
ADMIRAL OUSTER

E COMPRESSION SPRAYERS. The "work-horse" of all farm sprayers. Indispensable in dairy barn and other farm buildings, in field for spot weed clean-up, in yard and garden. And Hudson makes the best; fastest, easiest charging; in 1½, 2, 3, 4 gal. sizes.

F TROMBONE® SPRAYERS. Use with a pail for high pressure fog or long-range spray. Pistol grips for easy spraying. Telescop-

ing extension, fully adjustable nozzle. Two other models.

G. HYDRA-GUNS®. Ideal for dairy barn. Two strokes per cow for effective fly control. Great for flowers and garden too.

H ADMIRAL DUSTER. Recommended for applying dust to dairy and beef cattle for cattle grub and lice control; in poultry houses for vaccines; in yard and garden for general pest control.

See these and many other Hudson aids to Clean Farming at Your Dealer Now!

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H. D. HUDSON MANUFACTURING COMPANY
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Chicago 11, Illinois

MEN PAST 40

Afflicted With Bladder Trouble, Pains in Back, Hips, Legs, Nervousness, Tiredness.

If you have these troubles, particularly bladder trouble, then your condition may be traced to Glandular Inflammation... a constitutional disease. Medicines that give temporary relief will not remove the cause of your trouble. Neglect of Glandular Inflammation often leads to premature old age and sometimes incurable malignancy.

The past few years men from over 1,000 communities have been successfully NON-SURGICALLY treated here at Excelsior Springs for Glandular Inflammation. They have found soothing relief and a new outlook in the future of life.

The Excelsior Medical Clinic, an institution devoted exclusively to the treatment of diseases peculiar to older men, has a NEW FREE BOOK that tells how Glandular Inflammation may be corrected by Proven NON-SURGICAL treatments. This FREE BOOK may prove of utmost importance in your life. Write today. EXCELSIOR MEDICAL CLINIC, Dept. B8740, Excelsior Springs, Mo.

I WAS JUST FIGURING...

—by
Cy Watkins



AIN'T IT THE TRUTH!

You see it every day in all kinds of things. The Product is never any better than the quality of material the builder uses. The plant or creature is never any better than the "makings" that went into it during its formative period. That's true of trees, kids . . . and layers. Right now, many of you are building the layers you'll be putting feed into, and getting eggs out of . . . at a profit, you hope . . . next year. Whether or not you actually **do** make a profit on your layers may well depend on what you feed them today . . . how you bend the twig.

Will your birds have the body and the skeletal strength to endure the stress of high production? Will they have the physical vitality to lay at a profit? Assuming you started with well-bred chicks, these questions are being determined right now, during the growing period . . . as the twig is bent.

The truth is, great numbers of birds are nutritionally short-changed during the growing period and never become the profitable layers they **could** be. That's especially true of well-bred birds that are capable of top performance if they get the nutrients they need to build a good, strong, thrifty body.

So, when you consider your total investment in your layer operation, and the value of the feed you will put through those hens when they go into production, it's just plain penny-wise-pound-foolish to try to grow layers on a skimpy cheater feed . . . especially when it costs no more to feed a nutritionally superior ration, the Watkins Way.

On the Watkins Program, your birds will get the nutrients they're known to need, in proper balance, with bonus levels of key nutrients. They'll get a protein that has a correct amino acid (internal) balance. They'll get Vitamin A, D3, Riboflavin, Nicotinic Acid (Niacin), Pantothenic Acid, Choline . . . and if you like, with B-12 and a powerful antibiotic (Oxytetracycline).

You can feed this premium quality, highly fortified ration at a cost comparable to skimpy, "bargain-basement" feeds because Watkins fortification lets you make big savings on the bulk of the ration. Remember, poultry rations are mostly grain. It's the **fortification** that makes the difference in performance, and Watkins makes it possible for you to buy the fortification separately, without paying fancy prices for plain grain.

Your Watkins Dealer can supply you with the fortification in Watkins Vitamin Supplement with B-12 and Antibiotic for Livestock and Poultry . . . or, where debilities exist, use Watkins M-V Special for Poultry (a Mineral-Vitamin concentrate).

WATKINS PRODUCTS, INC.

Montreal - Winnipeg - Vancouver

FARM MECHANICS

Made a Garden Cultivator

A HANDY garden cultivator has been made by Clyde Bell of Lanark County, Ont. He had an old one-horse, spring-tooth garden cultivator, and was able to pick up another of the same make from a dealer. He removed the handles and attached the cultivators to a frame made from the angle-iron of an old dump rake. A three-point hitch was added, with the tower made from a 3" wagon tire. The original wheels were left on the cultivators to control depth.

Clyde says the cultivators can be adjusted for 36" or 40" rows, and the levers adjust the width at 1" intervals. He removes the inside foot from each cultivator when working in mature potato and strawberry rows. The hydraulic control on the tractor raises and lowers the cultivator, and the sway bars control the alignment.

It cost \$18 to have the cultivator made up at a local shop. The two old cultivators would run from \$15 to \$20 at local auction sales. **V**

Get More From Tires

YOU can avoid a lot of wear and tear on tractor tires by following a few very simple rules:

- Don't stand tires in oil, grease or gas.
- Wash tires down with a hose after spraying chemicals.
- Avoid sharp braking, or locking one rear wheel when turning. Make a wider turn.
- When wheeled equipment is laid up for a period, put it up on blocks and keep the pressure at the specified level.
- Start slowly and smoothly. Rapid, jerky starts grind down tractor tire bars in a hurry.
- Keep the tractor out of the sun when it's not in use. The sun dries out natural oils in rubber.
- Allow plenty of clearance between implements and tires to avoid tire slashing. **V**

Paint for Fire-Fighting

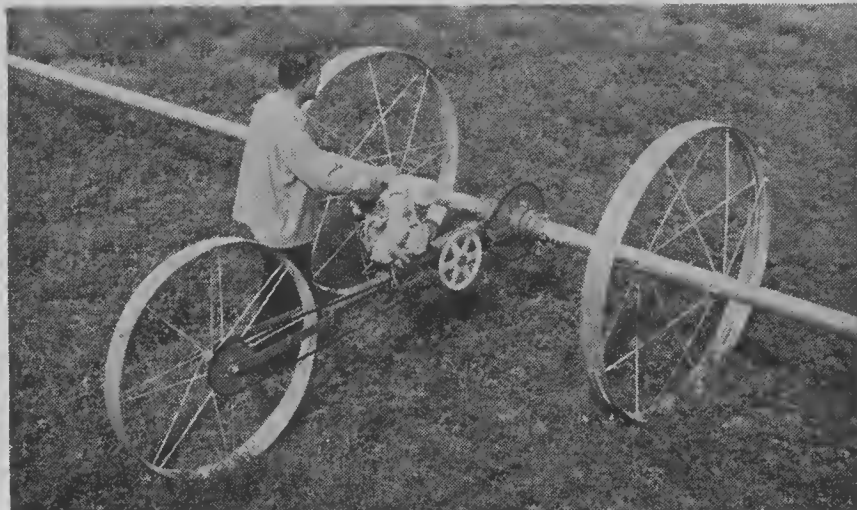
THERE has been considerable success in developing paints which retard fire, reports Prof. H. M. Lapp of the University of Manitoba's agricultural engineering department. These paints will not prevent burning, but by retarding fire they allow extra time to bring fire-fighting equipment into play, or to save people, livestock, or valuables.

Three heavy coats at 100 sq. ft. per gallon are needed for the highest protection. The paint can be applied by brush or spray, in most cases. The majority of paints in this class are white, but may contain tinting colors. In the latter case, the maximum tinting must not exceed 2 ounces per gallon.

Fire retarding paints are recommended for most interior surfaces, but should not be applied over new plaster. **V**



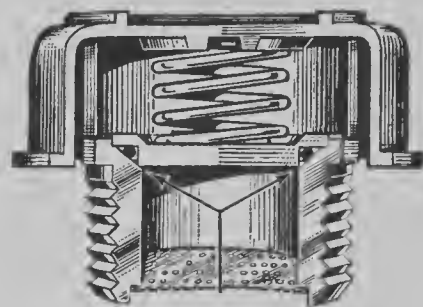
Mobile Sprinklers



Power unit moves a complete sprinkler lateral, as much as ¼-mile long, to new irrigating positions. The high wheels track perfectly, lifting the lateral clear of tall crops, and the whole unit is semi-rigid to keep alignment. Motor powers both lateral and rear wheel of drive unit. (R. M. Wade and Co.) (331) **V**

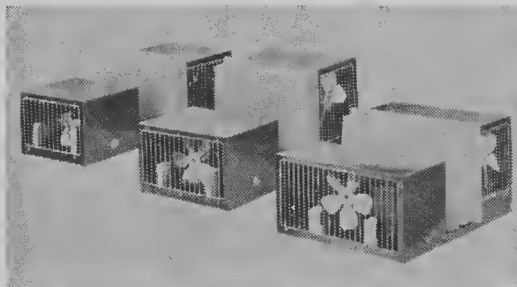
Pressure Vent

This cap is designed to prevent fuel losses by evaporation and wind suction from storage tanks. It allows excess pressure to escape from tanks when temperature rises, and airflow to build up pressure when temperature drops or fuel is drawn off. It fits 2½ in. fill openings. (John Wood Co.) (332) **V**

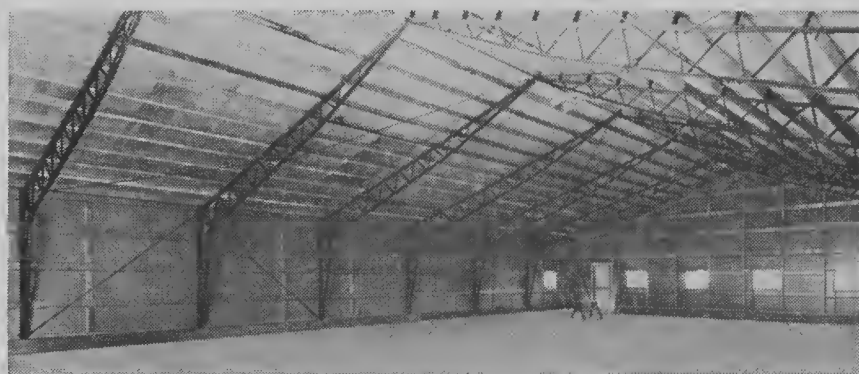


Egg Room Coolers

Coming in three sizes, all automatic, these cooler systems are made to hold egg temperature at 55° and to hold the proper relative humidity in egg rooms. No auxiliary humidifier is needed. (The National Ideal Co.) (333) **V**



Steel Framed Buildings

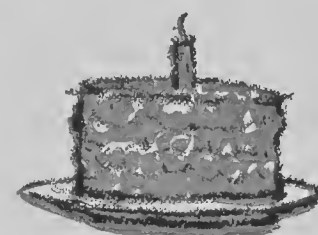


Known as TruSpan, these frames come in 5 widths from 30 to 60 ft., and 5 wall heights from 8 to 16 ft. Frames are spaced 12 ft. apart, wood roof purlins 24 in. apart. The buildings can be used for cattle and poultry housing, produce and implement storage. (Brantford Oven and Rack Co.) (334) **V**

For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man., giving the key number shown at the end of each item, as—(17).

*Hugging her, I said "Just
one more month, and Toronto,
back we come!"*

A CAKE TO CELEBRATE



by **CHRISTINE HENRY**

Illustrated by **JIM WALKER**

PINCHERRY, Saskatchewan! I never imagined that Betty and I would be starting our married life there. I had just graduated from dental school in Toronto, and Betty had been in her senior year at an expensive girls' college.

At first I didn't think Dad was serious when he showed me Uncle Clem's letter. I remembered Uncle Clem a bit. He was Dad's "odd" brother — nobody could understand why he'd left the East to set up practice in a poky little town on the prairies.

Well, the long and the short of the letter was that Uncle Clem wanted me to take over his dental practice while he took a 4-month refresher course in Michigan. "I'm the only dentist in the district," he wrote, "so I won't be able to get away for the course unless young Bill would help me out. It would be great experience for him."

Experience like that I wasn't interested in, but Dad went on about how it would be the first chance Uncle Clem had had to get away. Finally I said I'd leave it up to Betty. We were being married that month, and I was counting on assisting a big city dentist.

I naturally thought Betty would refuse. Well, not exactly refuse, but at least look a bit dismayed. That would settle it, because Dad's soft on Betty. But when Dad broached the subject, Betty got all starry-eyed, and said she'd love to go to Pincherry for a few months, because it would be "so romantic." I guess she thought it would be like one of those small towns in the movies. I knew Pincherry would never be a movie locale,

but even I didn't quite know what we were letting ourselves in for.

The drunken wooden sign we passed on the way in proclaimed, "PINCHERRY, SASKATCHEWAN. POP. 496. WE'RE THE BERRIES!" I learned later that the Board of Trade had sponsored a slogan contest which had split the town right down the middle. One of the town's curling clubs called itself the "Berries." The other (those in favor of the slogan, "The town that never sleeps") was called the "Wide-Awakes."

Uncle Clem had told us that we couldn't miss his house, and he was right. A mustard-yellow house, however small, does sort of stand out. Uncle Clem had left a few days before, attending our wedding on his way to Michigan to take his dental refresher course, so we had the place to ourselves. When we asked Uncle Clem about the house, he had taken his pipe out of his mouth and said, "Well, you might describe it as 'five rooms with path.'"

The path led to a mustard-yellow sentry box. Uncle Clem told us that we'd find it "sort of pleasant" out there in the summer time. In the winter, though, he told us, it was mighty cold, and he kept a toilet seat—the kind that goes with modern plumbing — behind the kitchen stove. When it was necessary to venture out, he'd pick up the "hot seat", tuck it under his coat, and run to get there before it cooled off.

When we got into the house, Betty looked bleakly at the pump by the kitchen sink. There were two bathrooms in Betty's parents' house. The one she used had turquoise fixtures, and

goldfish painted on the wall above the bath. I gave the pump handle a tentative push, and a thin trickle of yellowish water came out. Betty felt it. "Cold," she remarked. "Where's the hot?"

I explained about heating water on the stove. The stove took up a good part of the kitchen. Amongst the intricate scroll work in front of the oven were emblazoned the words, "GREAT WESTERN." There was a wood box beside the stove. "For wood," I explained to Betty, and then added hastily, "I'll light it for you every morning." I don't think Betty had ever seen a wood stove before.

Next morning, after I discovered that the stove gave the lie to the aphorism that where there's smoke there's fire, Betty made a discovery of her own—there was no drainage system in the house. When she threw her wash water from the pansy-decorated china bowl into the sink, she was suddenly standing in a rapidly widening pool of dirty water. "Bill, something's leaking!" she yelled, and I came running.

It was coming from under the door of the cupboard under the sink, so I opened it to investigate. It revealed our plumbing system—a 5-gallon Co-op grease pail.

"I guess," I said weakly, "I have to carry the water out and dump it somewhere every time the can gets filled."

"It's only for four months," Betty reminded me bravely. "Just until the end of September." At that moment, September seemed pretty darned far away.

It got so we told each other several times a day that we wouldn't be in Pincherry for long. "Only

four months." Then, on the last day of June, "only three more months." Betty made a chocolate cake that day to celebrate. It was a failure, of course. I don't think even Kate Aitken could have baked a cake in that oven. The cake was like cement at that stage when, if you walk on it, you leave your footprints. The icing had little hard pellets in it, because Betty hadn't known that you should sift icing sugar. But I ate that cake

with relish, because it meant there were just three more months to go. Already I'd been accepted by a big dentist in Toronto as his assistant, and he'd rented a suite in a brand-new apartment house in the suburbs for us, beginning the first of October. The real estate agent had sent us a plan of the suite, and Betty had it pinned up above the stove.

Every night before we went to bed we observed the ritual of putting

a big X through that day on the calendar in the kitchen—the one that advertised Schmitt's Plumbing, with the slogan, "When you need a plumber bad, you need him good." That wasn't the only calendar in the kitchen; Uncle Clem's walls displayed all the choice calendars of the past decade. But it was the only one for 1961.

One day Betty decided to take all the calendars down. "I can't stand looking at that 'Buffalo Stampede' and that dog howling over his dead master another minute," she declared one morning at breakfast.

But when she saw how the paint looked under the calendars, she hastily put them back. The kitchen was mustard-yellow too; I guess Uncle Clem had some paint left over after doing the outside of the house.

WASHDAYS were the worst. The washing machine, a querulous old veteran painted a municipal green and inappropriately named "Little Beauty" in orange script, was in the darkest corner of the basement. Every washday I had to get up at five in the morning to light the stove so as to get the water heated in a big, rusty boiler. When the water began to boil, about half-past eight, I'd carry it in pails down the rickety basement stairs and dump it into the voracious washtub. It took eight pailfuls to satisfy it, and there were still the two rinse tubs to fill. Meantime Betty stood at the top of the stairs, whimpering, for fear that I'd fall down with the boiling water and scald myself to death.

I was always late getting to the office on Mondays, and then during the morning I invariably got a frantic phone call from Betty, asking me to come home because something was caught in the wringer. I'd leave some poor devil in the dentist's chair, his mouth stuffed with rolls of cotton, and dash home to find Betty in tears, and the "Little Beauty" doing a hula-hula dance around the basement, growling belligerently and vomiting smoke. In spite of Betty's entreaties, I'd have to cut some intimate, lacy garment loose with my penknife.

At noon, I'd carry the eighteen

pails of water up the stairs, and dump it in the alley behind the house. The screw that was supposed to let the water out of the bottom of the machine was rusted and wouldn't turn, so we had to ladle the water out into the pails with a saucepan. No wonder that at the end of Mondays we both felt as if we'd had a short sojourn in a meat grinder! But we weren't too tired to mark the day off on Schmitt's calendar.

ONE day at supper Betty told me that Mrs. Schmitt had asked her to join the Ladies' Aid. I laughed right out loud at the thought of Betty at a Ladies' Aid meeting — she'd be as out of place as a barmaid at a vicarage tea. "How did you get out of it?" I asked.

But Betty didn't laugh. "I didn't get out of it," she said, passing me the mashed potatoes. "It's got to the point where I'd crawl over hot coals to get to a political meeting, or a tea party for retarded children."

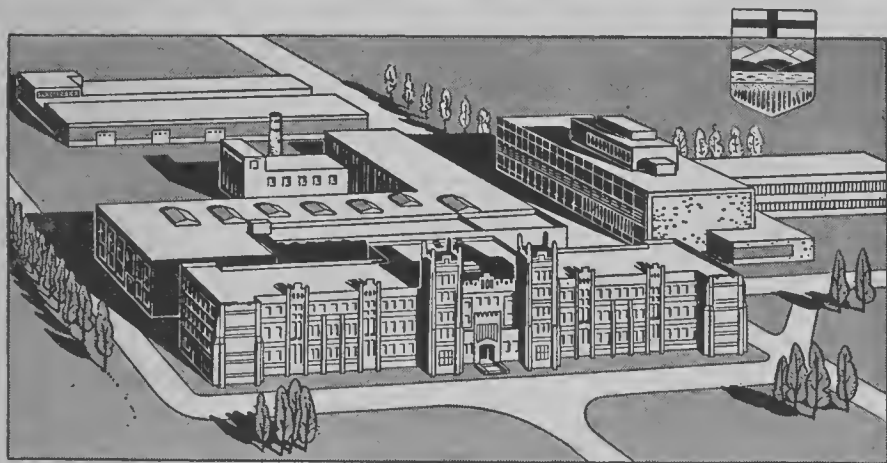
This was a slam at me for never taking her out on Saturday nights. Saturday nights was when I walked slowly up and down Main Street with Charlie Johnson, the town policeman. Other days Charlie was the town's maintenance man, caretaker of the town hall and garbage collector. But Saturday nights he was town policeman, with an over-size navy-blue peaked cap with a badge on it. He was jailer too, but the jail, behind the curling rink, was full of Main Street's Christmas decorations. He had a pair of handcuffs, but his predecessor had lost the key.

The first Saturday we were in Pincherry, Charlie called around to get me. He explained that Uncle Clem always went the rounds with him on Saturday nights to keep him company, and he'd be obliged if I'd do the same. So every Saturday night from then on I was assistant policeman. Charlie didn't have a gun, but he walked as if he did. Charlie watched television a lot. He regarded any minor infringement of the peace, such as the Hanson boys upturning the Lutheran pastor's outhouse, as symptoms of a coming crime wave.

(Please turn to page 54)

The Southern Alberta Institute Of Technology

TECHNICAL TRAINING



The purpose of The Southern Alberta Institute of Technology is to train men and women for semi-professional positions as assistant engineers and technicians in industry. These positions require specialized knowledge and skills in specific fields. Courses provide the necessary theoretical knowledge and skills for students to qualify ultimately for responsible, supervisory positions.

Prepare NOW for a career
Apply for 1961-62 term

TUITION FEES ARE AS LOW AS \$52.00 PER YEAR
COURSES COMMENCE SEPTEMBER 25th
(except as otherwise indicated)



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Art, Commercial, Advanced
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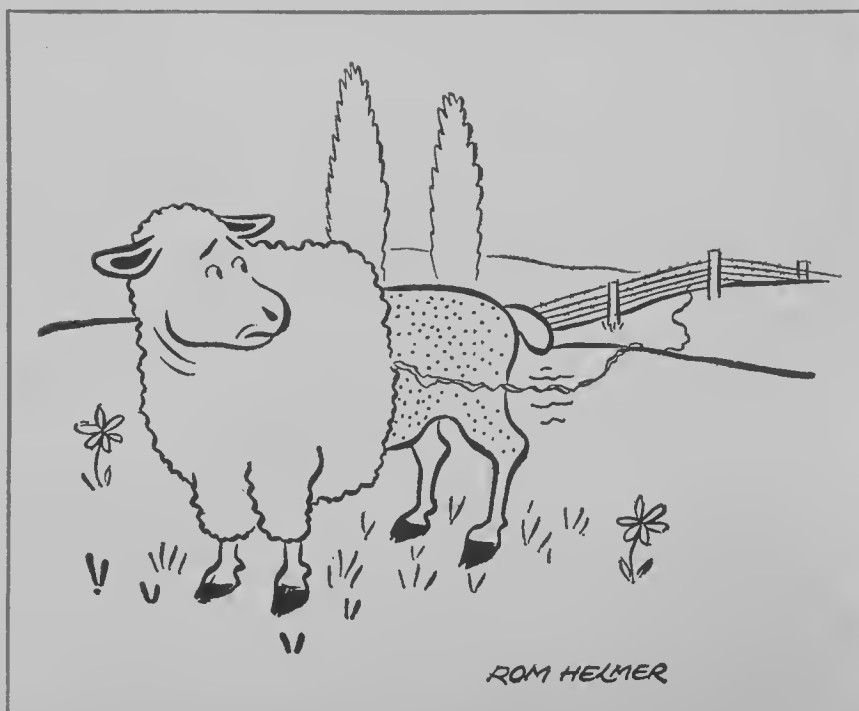
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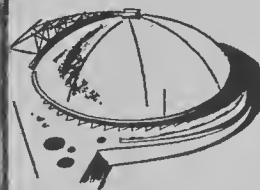
CITY _____



INCO DEVELOPS WORLD MARKETS FOR NICKEL

IN THE UNITED STATES

STAINLESS STEEL UMBRELLA



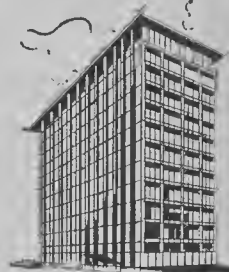
Watching a play or listening to music under the stars is a wonderful experience... until it starts to rain. A new all-weather auditorium in Pittsburgh, Pa., solves this problem with a nickel stain-

less steel dome. Eight huge sections nest together when the dome is open. At the first sign of rain, push a button... and the sections glide quietly around a track to form a stainless steel umbrella—and on with the show!

IN CANADA

STAINLESS STEEL SKYSCRAPER

Striking architectural effects were achieved through the use of nickel stainless steel curtain wall panels for the new head office building of Union Carbide Canada Limited in Toronto.



IN FRANCE

A NEW EXHIBITION CENTRE

This new exhibition centre for trade and industry near Paris uses more than 40 tons of nickel stainless steel in curtain wall panels, window frames and casements and for kitchen, pantry and bar equipment as well as interior décor.



IN ITALY

A MODERN OFFICE BUILDING

The new headquarters of Celestri & Co. S.p.A. in Milan, Italy, has a facade lined with nickel stainless steel panels. In the main entrance-way, columns, doors and elevators are also lined with stainless steel.



New ideas in architecture build world markets for nickel

Nickel strengthens stainless steel, increases its resistance to corrosion, makes it easier to fabricate. As an architectural material, stainless steel harmonizes beautifully with wood, glass, tile and enamelled surfaces, withstands weathering and requires little maintenance. Today, leading architects in many countries are using nickel stainless steel more and more for bold new concepts in design.

Canada is the world's largest producer of nickel. And Inco, through sales, research and market development operations, maintains a continuing program for the expansion of international markets for Inco nickel.

Pacing the growth in these markets, Inco continues to add new production facilities in the Sudbury, Ontario area and has developed an entirely new source of nickel at Thompson, Manitoba.

More Inco nickel than ever before will be exported to Inco's expanding world markets...helping to build trade balances, stimulate Canada's economic growth and create more jobs for Canadians.

THE INTERNATIONAL NICKEL

COMPANY OF CANADA, LIMITED

55 YONGE STREET, TORONTO



RECIPE FOR SHINY STOVES:

You can make your own stove cleaner that's just as effective and much cheaper than anything you can buy. It removes black, hard, encrusted grease and scorch marks like magic. Here's how: Dissolve 2 heaping tablespoons of Gillett's Lye in $\frac{1}{2}$ cup cold water in a glass jar. In another container stir 1 level tablespoon of flour in $\frac{1}{2}$ cup cold water. Pour this solution slowly into the lye solution, stirring continuously. Spread on surface (not painted or aluminum). Leave for an hour or two. Wash off thoroughly with water. For dozens of other time and money-saving tips, write for FREE 60-page booklet: Standard Brands Ltd., 550 Sherbrooke W., Montreal.



**THE RUGGED
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Nearest thing to
power-steering in a
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New Swivel Glide Unit
cuts weeds and lawns
clean and close with
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ease over the
roughest terrain.

PLUS: VARIABLE PITCH BLADE ACTION
adjusts blade instantly for any cutting job.

- CUIS WEEDS - MOWS LAWNS
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- HEAVY GAUGE STEEL CHASSIS
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I got to know every inch of Pincherry during these prowls with Charlie. Most of it was on Main Street—a church and the gospel hall, a general store (everything from cocoa to coffins), Fandrick's Drug Store, Schmitt's Plumbing (how they could do any plumbing business in Pincherry was more than I could fathom), the curling rink, the Royal Bank of Canada, the Clover Leaf Meat Market (my dentist's office was above it), Pete's Top-Notch Cafe, two garages, the lumber yard, Woodhead School, Dreamland Theater, and the "Pincherry Piper" newspaper office. ("Mr. and Mrs. Orval Bosomworth visited the Johnson home Sunday to watch TV" . . . "Mrs. Marvel Fandrick motored to Weyburn last Wednesday to pick up her new false teeth" . . . "Parents at the Home and School Association meeting were asked to discourage their children from taking short cuts to school over 'Pop' Parker's flower beds. . .").

BETTY joined the Ladies' Aid all right, and came home from the first meeting with her fists full of scraps of cloth. "I'm going to make a square for a patchwork quilt," she announced.

I looked at the little pieces of cloth, cut in squares and diamonds and triangles, and then at Betty. "Look, Betty," I said, "you don't need to go to all that bother. You go down to the general store and get a yard of cloth, any kind you like."

That, it appeared, was not the idea. "It's going to be a Star of India

quilt," Betty said, as if I'd insulted her. And right after supper she started work on it. I kept looking over at her, hunched over the sewing machine she'd borrowed from a neighbor, and now and then I couldn't help but chuckle, thinking what Betty's college mates would say if they saw her making a square for a Star of India quilt.

But Betty soon had the laugh on me, when I was asked to judge the Talent Nite. It seemed there was lots of talent in Pincherry, because it started at seven, and didn't finish until after one in the morning. I protested that I wasn't suited for judging a talent contest, because it was all to be musical numbers, and I'm just not musical. But the banker's wife said that would make it all the better because I'd be "more impartial." So I sat in the front row at the town hall, on a chair decorated with pink and green crepe paper, through Mrs. McKercher singing "Will There be Roses in Heaven," the Thompson twins playing a duet on the piano while Mrs. Thompson stood beside them thumping time out of time with her pencil, and twenty-seven other entries. I gave the prize to the local Elvis Presley, because there had been more clapping and whistling for him than for any of the other contestants, and I wanted to be on the safe side.

Our laughs at one another developed thick and fast after that. Betty whom I'm quite sure knew nothing more about the Bible than the story of Noah's Ark and Daniel in the Lion's Den, found herself teaching

the 8-year-olds in Sunday school. I got loaded with a troop of Boy Scouts, an experience which I found nerve-wracking and scar-producing. Betty wandered into the "Pincherry Piper" newspaper office to ask if she could buy some colored newsprint for making missionary maps for her Sunday school class, and the harried editor told her she could have all she wanted free if she'd report for proofreading every Thursday. Nobody would take on Uncle Clem's job as secretary of the Board of Trade, so I got roped in. The weekly meetings dragged on and on until I began to think we'd all be found dead next season by the forest rangers, with our antlers locked.

ANOTHER time I came home tired from a Board of Trade meeting to find Betty had baked another cake. There were two candles on it, and I realized that she made it to celebrate the fact that we had only two more months to put in in Pincherry.

This cake was a failure too, of course — an even more spectacular failure than the first one. "It looks like a pancake," I remarked after I'd kissed her.

"I forgot the baking powder, that's all," explained Betty. She had tried to make it look less flat by piling seven-minute frosting on top. Seven minutes is a long time to beat icing with an egg-beater over a hot stove, so Betty had given up too soon, and the icing wouldn't "stand up in soft peaks" like the recipe said. Instead it ran sluggishly off the cake onto

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Ancient Wooden Model of a Ship; Egypt, 2000 B.C. Royal Ontario Museum, Toronto.

the plate, and from the plate onto the tablecloth. It was awful cake, but we ate it.

"Only two more months!" I said, lifting the first forkful to my mouth.

I think Betty tried to answer "Hooray!" but her mouth was full of seven-minute frosting.

When we'd finished the cake Betty told me that tomorrow she had to serve at the Grain Growers' Club pie-and-coffee booth during the baseball game.

Next day I called in at the booth between innings. Betty looked so tired that I took over for a while. It was just as she'd described it to me:

"What kind of pie have youse got?"

"We've got apple, lemon, raisin, pumpkin and mince."

"Have youse got chocolate?"

"No, we've got apple, lemon, raisin, pumpkin and mince."

"Okay, then, I'll take the cherry."

"How on earth did you get involved with the Grain Growers' Club?" I demanded that night when we got home.

"They asked me," said Betty simply.

The next week I was at the Farmers' Union meeting. They asked me.

When I got home from that meeting I had to break it to Betty that she had to make four pies for their fowl supper next week.

"I've only made one pie before, and you know what *that* was like," Betty groaned. I did indeed. But she made the four pies, and when I took them (and Betty) to the supper, we slipped them in behind the other pies so nobody would know who brought them. (She had the forethought to bake them in those new foil pie plates, so she wouldn't have to claim the tins afterwards.)

NEITHER of us had ever been churchgoers, but suddenly we found ourselves right up in front, in the choir of all places. When the minister asked me to join the choir, I explained that I couldn't carry a

tune in a basket. In fact, my Dad had always called me "the voelamity." But the minister seemed rather surprised that I should think one had to be able to sing to get into his choir. "It looks sort of bare up in the choir during the summer with so many folks away," he said, "You and Betty would fill a couple of empty seats."

Miss Akehurst, the organist, had played for over fifty years. She practically had to be lifted onto the organ bench, but the way she presided at the organ, you'd think she was playing in Carnegie Hall. I couldn't tell whether she was playing "Rock of Ages" or "Yankee Doodle." I thought that was because I was unmusical, but Betty, when

we got home, said it was the same for her.

Miss Akehurst had a penchant for missing out a few verses if the hymn was too long. It seemed to me like scuttling the ship in mid-channel without making any provision for the passengers to reach the opposite shore. Her other trick was even more disconcerting. She'd go on merrily for a couple of verses after the hymn ended, leaving us high and dry, wondering whether to start over again at the first verse, or just stand there looking like ninnies.

What with all these meetings, and church activities, and visitors dropping in, and deciding to plant some flowers and shrubs in Uncle Clem's yard, the weeks went by. A few

times we were even too tired to cross out the date on the calendar at the end of a day.

ONE night when I came home, there was a pink cake on the table, with a big wax candle lighted in the middle of it. I recognized the candle as the one we used the previous night when all the lights went out for four hours. "What's the celebration?" I asked.

"Just one more month today!" said Betty, beaming.

"Well, what do you know!" I said, hugging her. "Just one more month, and Toronto, back we come!"

"No more pumps, pails and potties!" said Betty, and then squealed

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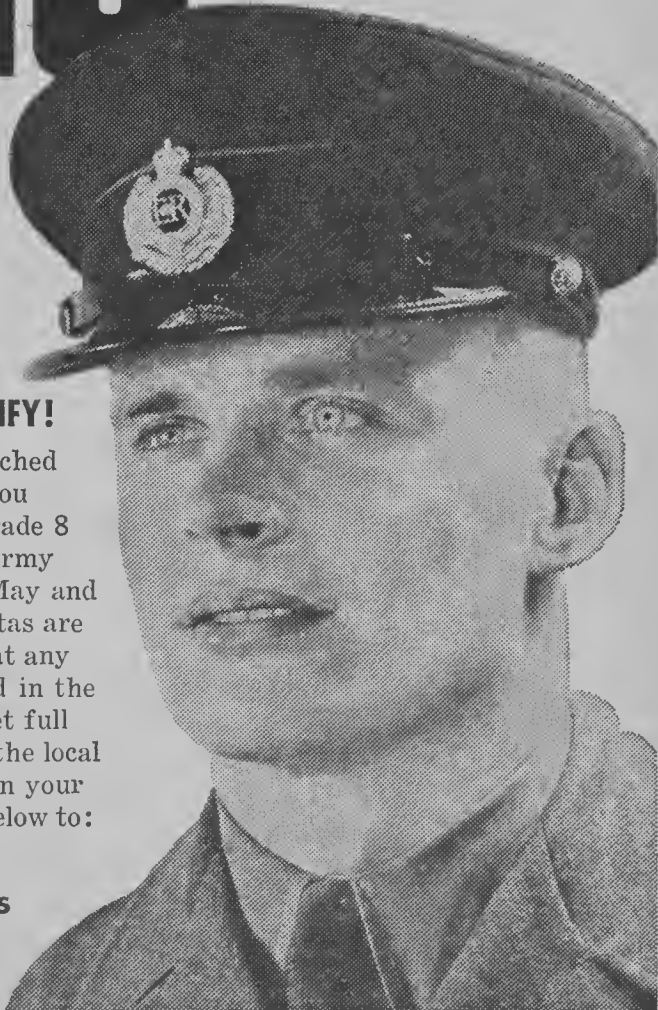
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E 61-28



"You want the recipe for this!
Gosh, Herb, your wife must be a
worse cook than Alma!"

delightedly as I threw her up in the air.

"No more romantic evening walks with Charlie," I shouted.

"A real bath, with hot water coming out of the taps," Betty yelled.

We took another look at the plan of our apartment in Toronto, still tacked up over the stove. The plan was a bit grimy from smoke and

there were splashes of grease on it, but you could still make out the big L-shaped living room with a fireplace at one end, the bedroom with dressing room attached, the compact kitchen with everything built in, the big closets, and the bathroom.

"A bathroom," said Betty reverently, stroking the place on the plan.

I started to cut a big piece of the One Month Cake. "This looks better than your other ones," I told Betty.

"It had a big hole in the middle," said Betty, "but I filled it up with pink icing."

I took a bite, and looked hard at Betty. "Betty," I said, "this icing has a peculiar flavor. What did you use to tint it pink?"

"Mercurchrome," said Betty. "Isn't that what people use?"

can't stay over just for a . . ." And then I remembered something, and added hastily, "Well, if we left Tuesday, I could go to the Board of Trade meeting Monday night. They'll be voting on that library bylaw, and I'd certainly like. . . ."

I was interrupted by a scream from Betty. She had just thrown the dirty dishwater into the sink, and the Co-op grease pail underneath had overflowed for the second time that day.

"Why don't you look first?" I grumbled, starting to wade through the dirty, greasy water. Betty took a step, slid, and fell headlong. I tried to pick her up, and fell on top of her. Betty started to cry.

"Oh, stop crying and get up!" I said, ignoring the fact that she couldn't because I was lying on top of her. "We'll get it mopped up."

"I'm not crying for that," sobbed Betty. "I'm crying because I don't want to leave Pincherry."

I was so surprised that I forgot to try to get up. "You what?" I hollered.

"I like it here!" screamed Betty.

I got up slowly, and helped Betty to her feet. I poured a glass of milk for each of us, and sat down looking out the window at the nasturtiums we'd planted. And all of a sudden I knew that I couldn't leave Pincherry either.

FROM then on we were counting days instead of months. Uncle Clem was to write us what day to expect him, and then we'd be free to go. The time got closer. Betty ladled out ice cream at the Sunday school picnic. I took my Boy Scouts on an overnight hike. The W.A. had a Strawberry Social. We did such a good job of looking after Buster Fandrick's Newfoundland dog for a week that Mrs. Fandrick decided we could be trusted with their 4-year-old son, Barry, for three days while they went on a fishing trip. Barry got tonsillitis, and Betty stayed up two nights with him. The cistern went dry, and we had to borrow water from a neighbor half a block away.

Betty was doing the supper dishes when I came in with the letter. I'd already opened it, just to make sure it said what I hoped it said. Everything was all right; Uncle Clem would be arriving on Monday. I skipped over the paragraph in which he asked me if I'd like to stay as his partner, to see whether he'd be on the morning train or the late afternoon train. It was the morning train. That meant Betty and I could meet it, give Uncle Clem his lunch, and then be on our way rejoicing.

"Well, here it is, honey!" I hollered out as soon as I came in the door. "The letter from Uncle Clem arrived! He'll be home on Monday!"

Betty grabbed the letter and kissed it. "It hardly seems possible that we're really going!" she said, all excited. Then all at once she caught her breath.

"Oh, Bill," she said, "we can't go on Monday. That's the day of the Grain Growers' bake sale."

"Oh, Betty, for gosh sakes, we

BETTY wasn't crying out loud any more, just sort of hiccuping, and not looking at me. "Betty," I said gently, "there's that little Thompson house down the road—the one you said you liked, with the pink shutters. I hear the Thompsons are buying a bigger house now that the twins are getting older and there's another one on the way. I bet we could rent it."

All at once Betty's arms were around me, and mine around her, even though her dress was all wet from the overflowed dishwater. We waltzed around the kitchen, laughing like ten people laughing.

At last Betty broke free. "I must bake a cake," she announced.

We had the cake that night before we went to bed. It was flat on one side with a big bulge on the other, and covered all over with a thick layer of pincherry jelly.

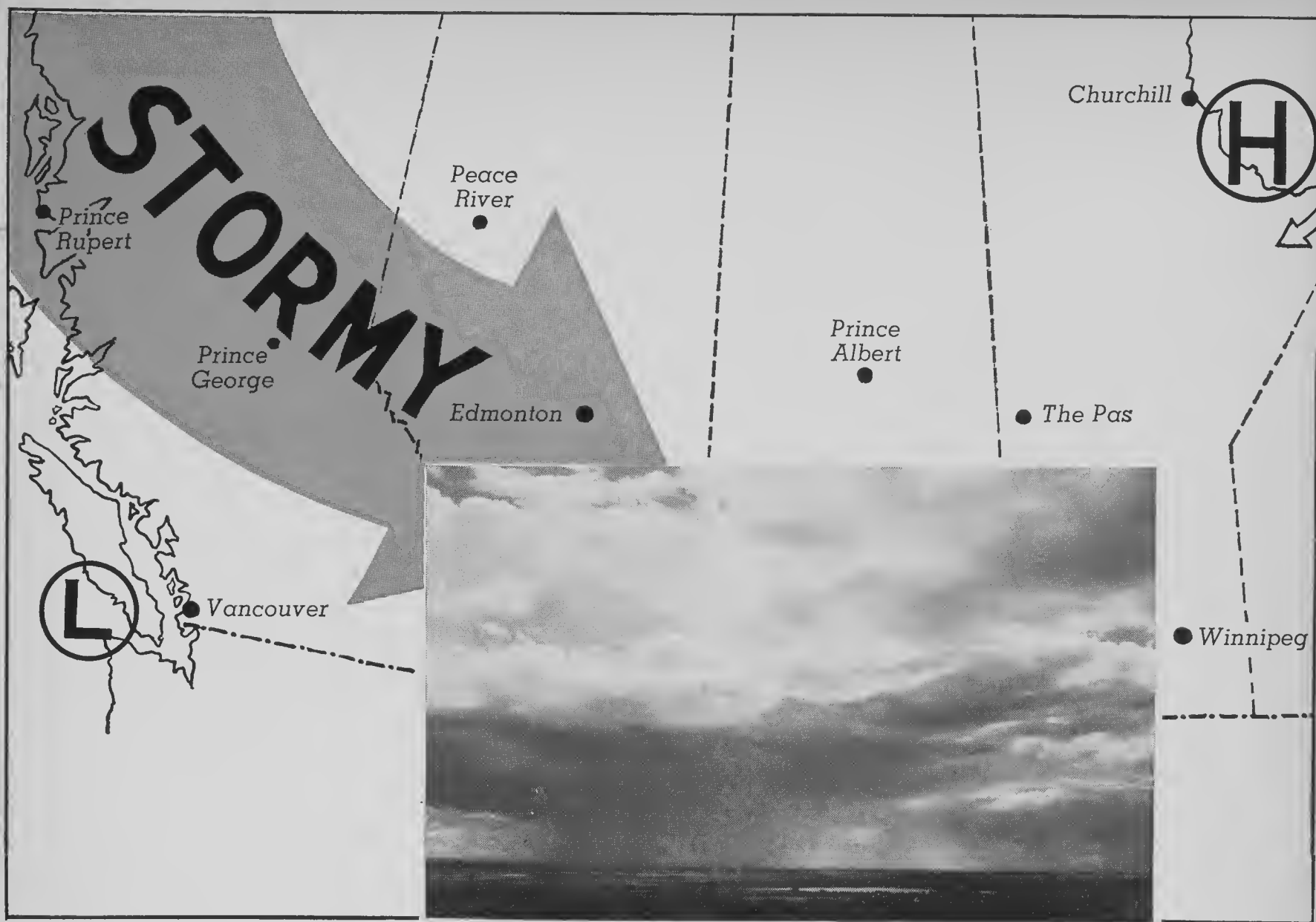


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This fluffy-crumbed layer cake combines luscious coconut flavor right in the batter with mouth watering milk-chocolate icing. And when you bake it with Magic, you'll serve it with pride!

I made it myself—with Magic!

LUSCIOUS COCONUT LAYER CAKE

Sift together
 $2\frac{1}{3}$ c. once-sifted
 pastry flour
 or 2 c. once-sifted
 all-purpose flour
 3 tsps. Magic Baking
 Powder
 $\frac{1}{2}$ tsp. salt
 Cream in a mixing bowl
 $\frac{3}{4}$ c. butter or
 Blue Bonnet Margarine
 Gradually blend in
 $1\frac{1}{4}$ c. fine granulated sugar
 Add, one at a time, beating
 in well after each addition

2 eggs
 1 egg white
 Combine
 $\frac{2}{3}$ c. milk
 $\frac{3}{4}$ tsp. vanilla

Add dry ingredients to creamed
 mixture part at a time, alter-
 nating with milk and combin-
 ing lightly after each addition.

Fold in
 $\frac{3}{4}$ c. cut-up shredded
 coconut

Turn batter into 3 greased 8"
 round layer cake pans, lined
 in the bottom with greased
 waxed paper. Bake in mod. hot

oven, 375°, 20 to 25 mins. Stand
 on wire racks 10 mins. Turn
 out, peel off paper and allow
 cakes to cool completely. Put
 layers together with a filling
 and frosting of Milk Chocolate
 Icing and sprinkle with toasted
 coconut.

Milk Chocolate Icing: Sift $3\frac{1}{2}$ c.
 sifted icing sugar and $\frac{1}{2}$ c. cocoa
 together. Cream $\frac{1}{2}$ c. butter or
 Blue Bonnet Margarine; add 1
 egg yolk and beat until well
 blended. Add sugar-cocoa mix-
 ture alternately with sufficient
 hot cream (about $\frac{1}{4}$ cup) to
 make an icing of spreading con-
 sistency. Beat in 1 tsp. vanilla.



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Readers Suggest

For a new look in package tying,
 use several strands of left-over yarn
 as a substitute for ribbon. These may
 be braided and the ends finished with
 small tassels, bells, balls or tiny dolls.
 — Mrs. Catherine Ryan, St. Mary's
 Bay, Ont.

* * *

To wash cut glass so that it is clear
 and shining, use a soft brush. After
 drying with a linen towel, polish the
 article with tissue paper.—Mrs. J. D.
 Blackhall, Yorkton, Sask.

* * *

You can save both time and fuel
 in cooking a cream sauce for vege-
 tables if you make the sauce in the
 top of the double boiler while the
 vegetables cook in the bottom half.

When cutting quilt blocks I cut my
 pattern out of fine sandpaper and use
 the bottom side up. The pattern never
 slips and the blocks are perfect every
 time. — Blanche Campbell, Rivera,
 Calif.

* * *

If you sprinkle sugar over the top
 of cake batter before baking it, the
 cake will be iced when it is baked.—
 Mrs. A. Buttery, Porcupine Plain,
 Sask.

* * *

A handy pocket can be made for
 accessories such as gloves and scarves.
 Cover a coat hanger with cotton
 print or chintz, making a deep pocket.
 A pocket on a child's hanger is es-
 pecially useful to hold these articles.
 Such a pocketed hanger will help to
 teach children to keep accessories
 with their coats, ready to go anywhere
 at a moment's notice.

Fruits and vegetables ripened on a
 cake rack ripen evenly without turn-
 ing. The cake rack raises the produce
 from the table surface, allowing air to
 circulate all around.—Mrs. D. S. Cal-
 kin, Dorchester, N.B.

* * *

To keep patent leather bags, shoes
 and belts shiny and pliable, rub them
 with a cloth dampened in milk.—
 Mrs. P. W. Bayer, Benson, Sask.

* * *

To remove fruit stains from your
 hands, wash them with lemon juice
 and rub with dry salt.—Mrs. Chris
 Harsch, Carbon, Alta.

* * *

When I have several chores for my
 young children to do, or if we are
 leaving them at home to do the
 chores, I make a list of the tasks on
 their blackboard. They erase each one
 as it is done and it is surprising how
 quickly they finish. It's more interest-
 ing if occasionally you include some-
 thing like "Have some candy" or
 "Play a game of Chinese checkers" to
 break the monotony of chores.

Sometimes several teeth come off
 the bottom of a zipper. If the zipper
 is otherwise good you need not re-
 place it. Work with the zipper until
 you have it closed properly. With a
 needle and thread sew over and over
 just above the break, keeping the
 stitches close to the zipper teeth.
 Make a pad of stitches about $\frac{1}{4}$ "
 long and thick enough so that the
 zipper pull will not slide past it.
 Mrs. Helen Haszanski, Cremona, Alta.

Home and Family

The Country Guide's magazine for rural women



A Break for Barbara

"WE started this afternoon coffee break about a year and a half ago," Barbara Gray told me, "and now we just couldn't get along without it!"

Having been lucky enough to join the Grays at their coffee break time, I can see several good reasons why it is so popular. Certainly one of them would be Barbara's tea biscuit twirls. They are a favorite of her husband Bev and she makes them often.

Like many good cooks, she makes her biscuits by feel, and when I asked if she would share her recipe with us, she laughingly said she would if she could, but would have to wait until she made them again and write down what she did as she did it. So she has and her biscuit recipe is printed below with two others. Barb says she likes the pineapple date bread because it is so easy to make and stays so moist, and the fudge square is the Grays' most popular cookie.

Barbara and Bev Gray live with their son Scott at Locust Cottage Farms in Durham County near Port Hope, Ont. Both are graduates of the Kemptville Agricultural School and both are well known for the very active part they have taken in the Ontario Junior Farmers' organization.

The young Grays moved into a new home on Bev's family farm after they were married. Bev did much of the work on their home. When we commented on the attractive green counter surface in the kitchen he told us of heating the vinyl plastic material with a torch to make it pliable enough to curve over quarter-round at the counter front. It is tacked underneath. On the counter top, he grooved the wall edge and secured it with aluminum stripping.

One permanent feature in the Gray kitchen represents a husband's triumph. Barbara was very firm about not wanting a couch in her farm kitchen. Unbeknownst to her, and between two of her frequent visits to the site while the house was under construction, Bev designed and built a rest nook along one wall. A leather-covered upholstered bench, couch-wide, is part of the storage wall. Bookshelves at one end reach ceiling-high and Barbara confesses they are a handy place for cookbooks and recipe storage. The telephone is located on a low shelf, and the bench-couch is a comfortable place for making and receiving the many telephone calls necessary in the Grays' busy life.

The Grays have gone right on building their home from the inside since moving in. Barbara appreciates the spacious vanity storage they have built in the bathroom, and stores articles which are used only rarely in a cupboard above the tub. The mirror above the sink is inset to prevent unnecessary splashing.



[Guide photos]

by GWEN LESLIE

Barbara turned her hand to refinishing furniture for Scott's room last fall. It now boasts a warm red-tone suggestive of maple. She is an accomplished scamstress and finds this a talent in demand among her friends and neighbors.

Another of Barbara's hobbies is cake decorating and she has put the finishing touches to a host of wedding cakes. However, it's her day-to-day coffee break cooking that brings her husband from his busy farming day.

The coffee break at the Grays' farm home is another instance of farm business adapting big business procedure. A rest from work has been proved to increase efficiency and decrease errors and accidents. Perhaps you will find a coffee break can do that for you—and with Barbara's recipes you'll enjoy the experiment!

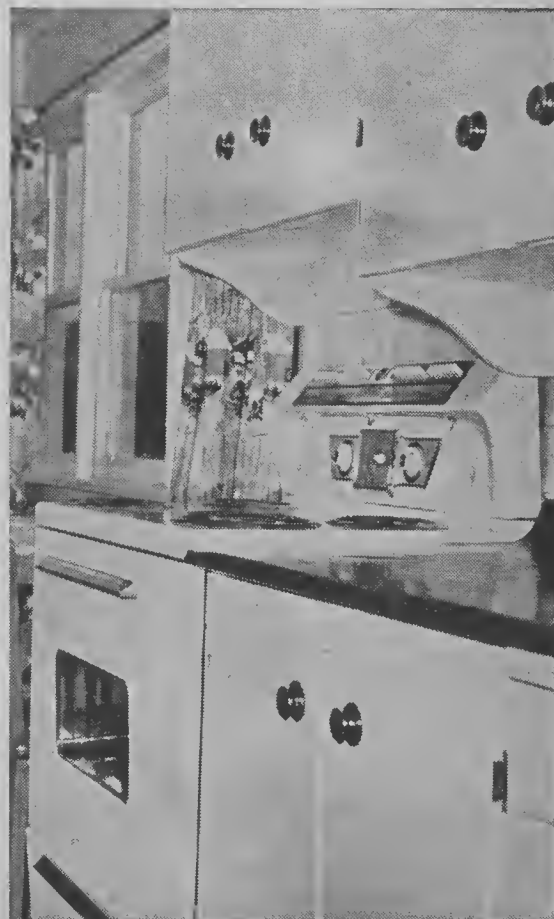
Barbara's Tea Biscuit Twirls

2½ c. flour	½ tsp. salt
5 tsp. baking powder	5 T. shortening or lard
4 T. sugar	½ c. to 1 c. milk

(I quite often cut down on the shortening and use milk with cream added)

Sift flour, baking powder, salt and sugar together into mixing bowl. Cut in fat with pastry blender. Pour in milk; stir quickly with fork until mixed. Turn dough out on a lightly floured board. Knead lightly. Roll ¼" thick. Spread dough with this mixture:

(Please turn to page 60)



IN THE SERVICE OF AGRICULTURE



THE HOME ECONOMIST

is a University graduate, like the extension specialist. She works with the women and 'teen-age girls in the community, teaching them cooking, interior decorating and all the things that make for better farm living.

OUR LOCAL MANAGER

is another person who works closely with many members of the community to help improve the standards of farm living. He has had long experience in looking after the banking needs of Canadian farmers. Visit him the next time you're in town.

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Woman Relieved of Agonizing ITCH

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(Continued from page 59)

2 T. warm butter Raisins or currants if
1/3 c. brown sugar desired
Cinnamon

Shape like a jelly roll and cut in 3/4" slices. Place slices on a cookie sheet and bake in a hot oven at 425°F. to 450°F. for 15 to 20 minutes.

When the Tea Biscuit Twirls are baked, I like to dress them up with this topping:

3 T. water 1/2 tsp. butter
4 to 5 heaping Vanilla
tsp. icing sugar

Combine ingredients in a very small frying pan. Boil gently until mixture starts to form rather big drops when tested from a spoon (2 to 3 minutes). Remove from stove and beat with spoon until mixture shows signs of going cloud white. Brush on top of biscuit twirls.

Pineapple Date Bread

3 c. all-purpose flour 1/3 c. milk
4 tsp. baking powder 1 c. crushed pineapple (9-oz. can)
3/4 tsp. salt 1 c. chopped pitted dates, cut fine
3/4 c. sugar 1/3 c. salad oil
1 egg

Sift dry ingredients together. Beat eggs slightly and add with milk, pineapple, dates and oil. Stir to blend, then pour into greased 9" by 5" loaf pan. Bake in a moderate oven at 350°F. for 1 hour. Cool thoroughly, then store in the refrigerator.

Fudge Squares

1/2 c. butter 1/2 lb. graham wafers, rolled fine
1/2 c. brown sugar 1/2 c. walnuts, chopped
2 eggs
2 T. cocoa
1 tsp. vanilla

Icing:

1 c. icing sugar 1 T. shortening
1 oz. unsweetened chocolate Hot water to blend

Prepare icing first. Melt chocolate, blend into creamed shortening. Stir in sifted icing sugar and enough hot water for spreading consistency. Set icing aside.

Combine butter, brown sugar, eggs and cocoa in a saucepan and heat until mixture bubbles. Stir in vanilla, then wafer crumbs and chopped nuts. Press into a buttered 8" square pan. (If desired, chopped marshmallows may be added when pressing mixture into pan.) Ice immediately and store in the refrigerator.

Our thanks to those who shared their household hints with us. We're sure you will understand we could not accept all of them. Where duplicates were received we gave first consideration to the earliest letter. Payment has been made for those accepted. Sorry, only hints accompanied by a self-addressed stamped envelope can be returned.

Club Creed

We can now offer to our readers a limited number of folders containing the Club Women's Creed, written by Mary Stewart. They are available, upon request at a nominal charge to cover postage and handling. These charges are:

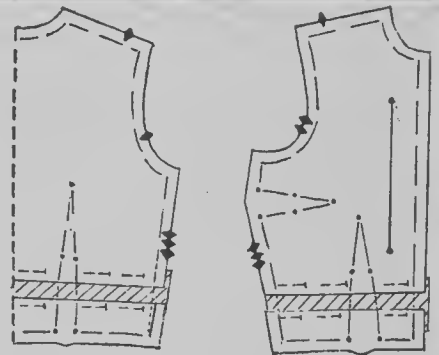
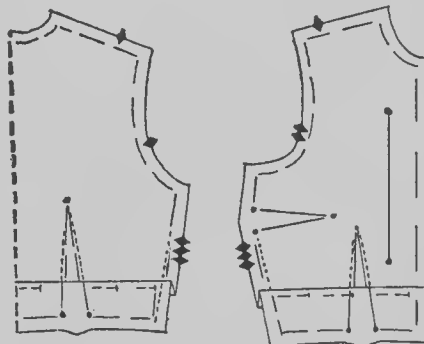
Single card..... 10 cents
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Address your request to the Home and Family Section, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man.

Clip and Sew Sewing Hints

To Lengthen Bodice

Cut apart front and back pieces between alteration lines printed on pattern. Place a piece of tissue paper under the separated pieces which have been spread apart to give the required length. Pin to paper underneath. Trim edges of paper to continue lines of pattern.

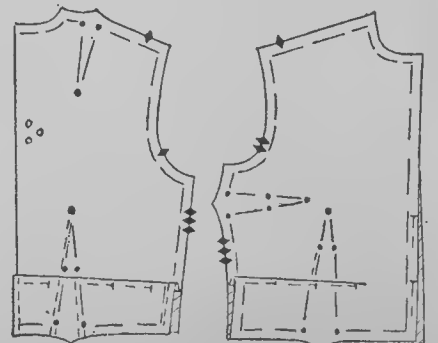


To Shorten Bodice

Crease horizontally across front and back bodice on alteration lines. Fold and pin a tuck in each piece to shorten bodice the required amount. Straighten outer edges of pattern as indicated by dotted lines.

To Shorten Back Bodice

When shortening is required in back of bodice only, it is sometimes necessary to make an adjustment at the underarm seams. Beginning at the center back, fold and pin a tuck to shorten the required amount. Graduate to a narrower tuck at underarm seams; taper to nothing on the bodice front, as shown.



(Courtesy Butterick Sewing Book)



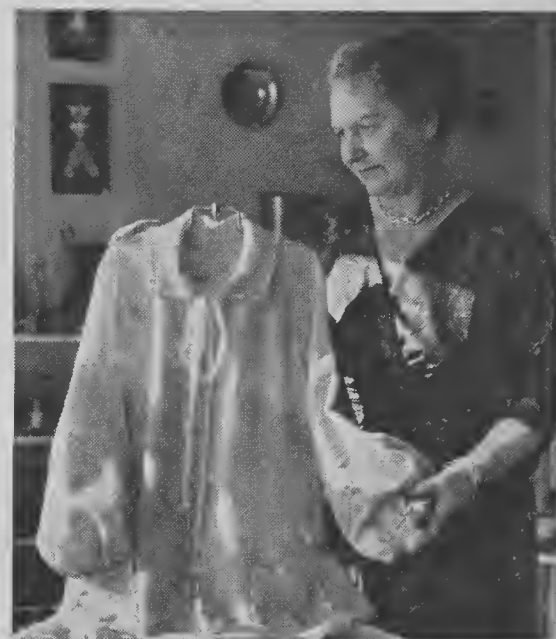
These samples of artistically designed crafts prove the excellence of Canadian workmanship.

*The enthusiasm, energy
and enterprise of these Ontario
women made a success of . . .*

Crafts in a Community

by **ELIZABETH GRANT**

photographs by **JANET SAYLOR**



Mayme Moyer proudly shows one of the negligees designed and made within the Norval community.

“WHEN a hobby turns into a way of life, it seems as if there aren't enough hours in the day for everything, but I love every minute of it. If I had my life to live over, I'd do exactly the same things.” Somehow you expect such words from Mrs. Mayme Moyer of Georgetown, Ont. Her eyes sparkle, her mind is alert, and her conversation bubbles with enthusiastic ideas.

Mayme Moyer became interested in handicrafts, and weaving in particular some years ago. Her enthusiasm enlisted the aid of so many interested neighbors that today she owns a fascinating little shop on Highway 7 on the outskirts of Georgetown.

Mrs. Moyer's venture had a small beginning. She and her husband, tired of city life and seeking the peace they felt the country could offer, retired some years ago to a farm outside Georgetown. They wanted a garden place, and so they searched until they found a farm with a good orchard.

One day, a Toronto friend gave Mrs. Moyer an angora rabbit. Soon she was operating an angora ranch. She took a course in spinning, to learn how to spin the wool. Then, she realized that, “When you're through with spinning, all you have is a ball of yarn for your efforts.” And so it wasn't long before she widened her interests to include weaving.

The next step was the formation of a small Arts and Crafts club. She passed her knowledge of spinning and weaving along to its members. When the Club started it was impossible to purchase looms but one by one, members acquired their own looms. Today, there are some 70 looms in the community.

Club members eventually became so proficient that it became increasingly difficult to market their output. It was then that Mrs. Moyer began to consider a shop where members' goods might be displayed and sold. She thought such a shop might also give impetus to their work.

Mrs. Moyer, never a person to hesitate, started her search for the ideal location bright and early one morning. She discovered it in an old church long out of use, situated on a highway where motorists would be sure to see the “Kirk Kraft” sign.

THE church proved to be a good choice. Afternoon tea attracted visitors and neighbors alike. The afternoon sun, streaming through stained glass windows provided a pleasant setting for visitors seated in the choir loft eating dainty sandwiches and cakes from huge silver platters. To add to shoppers' pleasure Mrs. Moyer used beautiful silver tea services, and fine china. On one occasion, when one cup was missing, Mrs. Moyer smilingly decided that, “someone was just too embarrassed to admit to breaking one of my

good china cups, and must have gathered up the pieces and smuggled them out.”

The church, although it was a beautiful setting for displaying the Club members' handicrafts had disadvantages. Chief among these was the fact that it was an old, drafty building and most uneconomical to heat during winter. As a result, Kirk Kraft was open for summer only.

As interest increased, and profits began to swell, Mrs. Moyer started to think in terms of a year-round business. Christmas trade alone, she felt, might warrant such a change. Three years ago, she sold the church. Now Kirk Kraft is established in a quaint 100-year-old house. The store proper is downstairs; Mayme and her husband have their living quarters upstairs.

This attractive old building on Highway 7 at Norval just outside Georgetown was once the village manor house. There's a parking lot at the rear, and many Toronto visitors find it faster and far more pleasant to drive 40 miles to Georgetown to shop than to attempt to park in the city's congested downtown district.

At Kirk Kraft there are skilfully hand-woven articles to admire. Mrs. Moyer develops most of the designs. She also finishes all garments in her workshop. Marjory Nazer, an experienced weaver and a member of the Arts and Crafts Club, supplies the shop's intricately fashioned place mats. It takes her between 20 and 40 minutes to weave each place mat, depending upon the complexity of the design.

Club members receive a satisfactory financial return from individual hobbies; and they provide



This 100-year-old house is a focal point for the thriving business in handicrafts which has been developed within this Ontario district.

the store with a never-ending supply of woven articles. Their ingenuity is almost unbelievable, for they turn out baby clothes, scarves, skirt-lengths and matching stoles of excellent workmanship both in design and style.

MAYME MOYER'S interest encompasses all forms of artistic endeavor. She wants most of all to make Canadians craft-conscious and she is constantly watching for samples of Canadian crafts.

For example, she sells wood carvings of unique design and skilled workmanship by Canadian artist Wilson Johnston. There are also imports from other parts of the world (bought directly from the artist) including samples of work from Mexico, Japan and France. Mrs. Moyer likes the variety these offer in the store. But she is more concerned that these imports help the farm and local women who do the weaving to develop new ideas by seeing a variety of crafts.

Canadian interest in crafts has shown a marked increase in recent years but Mayme Moyer is not afraid of the competition this may eventually produce. She says “It wouldn't hurt us a bit; my ambition has always been to see other farm communities doing the type of thing we are doing here.” Her advice to women interested in organizing a craft club: contact the Board of Adult Education, Ottawa, for information regarding spinning, weaving and other allied crafts.

In Mayme Moyer's view women can accomplish much more than they do. She's firmly convinced that those women with grownup families who find time heavy on their hands, would discover in handicrafts the way to an interesting and rewarding life. And she just doesn't believe that it's impossible for them to take on anything else. “There's always time for a little more, and the pleasure derived from handicrafts releases energies in us we didn't know we possessed.” And this is the secret of Mayme Moyer's success. V

THE ROCKER THE ROCKER THE ROCKER

by DONNA HILL

WILL was so proud the day the rocker came.
My birthday had been past a week or more.
("The mail order often takes its time,"
The station agent told him patiently.)
And now it was installed in our new home.
(Will swore it weighed at least a half a ton.)
While I, his bride, possession-proud, had rubbed
My hand along the padded leather arms.
"Sit in it, Sarah. Try it out for size."

Will was dismayed at the resulting noise;
A muffled creak from deep within its depths.
We learned to love that sound as time went by,
As tiny Ellen filled my arms with love
And listened sleepily to its soothing rhythm.
I can recall the rocker's tired groan
As Ellen played at being a fairy queen
And issued orders in imperious tones
To smiling subjects, mute and sawdust-filled.

And truly it became her regal throne
As on that happy day of days, she sat
Radiant in bridal satin, and received
With gracious smiles the homage of her guests.
Streamers pink and white festooned its arms,
And deftly draped toward the floor, to hide
The unsightly marks made by sly old puss
Where now and then she honed her lightning claws.

On winter afternoons the chair became
My friendly watch-tower where I rocked and gazed
Through frost-flowered pane, and waited anxiously
To glimpse the children trekking home from school
With empty lunch pails swung from mittened hands.
Dear Tommy loved to crawl upon my knee
To tell me, as I gently rocked, what great
Adventures had befallen him that day,
His deep blue eyes alight with childish glee.

Those same blue smiling eyes looked down on me
From deep within the shiny gilted frame
Upon the mantel, as with loving hands
I rocked and fashioned socks of airforce blue.
My darling boy, to whom all life was but
A joyous game that ended all too soon.

MANY the blusterous night the rocker's creak
Vied with the solemn ticking of the clock
As I, with anxious heart and troubled mind
Waited through endless hours, while my ears
Strained for the welcome sound of harness bells
Heralding Will's return from wooded hills
With sleigh piled high with new-cut poplar logs.
("The sleigh upset on that sharp curve beyond
The Johnson place. Joe Bell was close behind.
He stopped and helped me to reload the wood.
I wish you'd get your rest and not wait up
Imagining all sorts of dreadful things.")

Above the clatter of the dinner plates
The friendly creak could still be heard, as Will,
With feet outstretched, arms folded on his chest,
Rocked and listened with indignant grunts
As newsmen told the latest goings-on
Of the government in far-off Ottawa.

Engrossed with wifely chores, I did not sense
The silence as the rocker's voice was stilled,
But minutes later, as I called to Will,
And from the parlor heard no answering sound
I hastened to his side to find that Will,
His work-lined face relaxed in restful pose,

In wakeless sleep was gone from me forever.
"He was an active man," the neighbors said,
"And would have wanted death to come this way."

But in my grieving, shock-stunned heart I cried
"I did not have a chance to say good-by."
No chance to say the many words of love
Held back, unspoken in the busy rush of life.
And then the pastor, speaking kindly words
Of understanding and of cheer, leaned back
Against the wrinkled leather. Now once more
The rocker's softly muffled creak was heard,
As if to say that life would still go on
Both here on earth and in eternity.

When I, with faith-filled heart and brimming eyes
Tried to explain the message that it gave,
The pastor, with a knowing smile replied,
"I do believe that every house should have
A rocker such as this to make a home."
Then, as he rose to leave, gently placed
His hand upon my young Will's sun-tanned arm,
"Take good care of your mother, son," he said.

My son; my precious curly-headed boy
Who once was wont to sit and rock and dream,
Has now become a man. His soft-voiced wife,
So much like my own Ellen, helped him plan
And build the fine new house. I watched it grow
As near my parlor window by the hour
I sat and rocked. And now their little son,
Dear chubby Tommy, comes to visit me
And climbs upon my knee to talk and smile
As Granny rocks the time-worn leather chair,
So full of life's dear, tender memories.

Illustrated by MANLY GELLER



Robin Hood,
first to introduce
Pre-Sifted Flour,
now announces
a further development:



NOW, NO SIFTING EVER

with Robin Hood Pre-Sifted Flour

THE NEW CONCEPT. Ordinary Pre-Sifted Flour baking is now old fashioned. Robin Hood Flour is so completely pre-sifted that you **NEVER EVER SIFT—NO MATTER WHAT YOU BAKE.**

Read below how this new baking method was tried and tested... what Canadian housewives said about it... and how you can use it for quicker, better, easier baking.

THE WOMEN WHO TESTED IT.

At the completion of Robin Hood's own laboratory and kitchen tests, a further step was taken: 323 women were carefully chosen to home-test No-Sift baking*.

Some were city dwellers, some country women. They lived all across Canada. All were picked for their experience, honesty, and good judgment. They were asked to use Robin Hood Flour, and the No-Sift method, for all their baking—from lightest cake to heartiest bread.

WHAT THEY THOUGHT

When the test-period was over, we asked for our testers' reactions. Nearly 7 out of 10 said "better than the usual method—for all kinds of baking". Of these, more than a third said "much better than usual"!

WHAT DID THEY LIKE ABOUT "NO SIFT" BAKING?

Almost *all* the women mentioned one or both of these two outstanding advantages:

- (1) *Convenience*—No-Sift baking is simpler, quicker, easier.
- (2) *Improved Quality*—finer texture, extra lightness.

It is interesting to note that improved quality was especially striking in the most delicate cakes—angel and chiffon. Both these cakes are real tests of a flour's worth. Yet 81% of women who baked them commented "above average".

IS IT BETTER THAN THE ORIGINAL ROBIN HOOD PRE-SIFTED FLOUR?

Some of our testers were already using Robin Hood Pre-Sifted Flour. Using it now the No-Sift way, 4 out of 5 liked it even better than before.

WOULD THEY BUY IT?

This was the acid test: did our testers like their No-Sift experience enough to become buyers of Robin Hood Flour? They did indeed. 94% said they would buy (two-thirds of these even said they would buy *only* Robin Hood Flour).

HOW TO BAKE THE "NO SIFT" WAY.

Of course you may continue to use your present All-Purpose Flour recipes with "No-Sift" All Purpose Flour.

Don't sift at all. Just measure the amount your recipe calls for... and take out one heaping tablespoon for every cup. (NOTE: stir instead of sifting when blending dry ingredients).

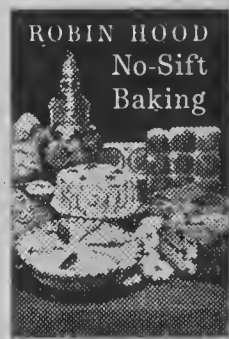
That's all there is to it—no mess and bother of sifting, ever!

GUARANTEED: QUICKER, EASIER, BETTER BAKING.

Robin Hood Pre-Sifted Flour is guaranteed. If you are not delighted with your No-Sift baking, you will get your money back plus 10%. Remember, Robin Hood is the same fine All-Purpose Flour as always—*completely* pre-sifted for you. Bake wonderful things? Sure you could with Robin Hood.

RECIPE BOOK OFFER

"ROBIN HOOD NO-SIFT BAKING"



Delightful book contains 56 recipes—all adjusted for you to the Robin Hood No-Sift baking method.

There are recipes for cakes, pies, cookies, pastry, breads and quick breads. Many are already favourites—many are quite new and different. All are delicious and easy to bake the new No-Sift way.

To get your copy of this book, write Robin Hood, Box 8500, Dept. B, Montreal, Quebec... enclosing the Guarantee Certificate from any size bag of Robin Hood Flour.



Robin Hood

FLOUR MILLS LIMITED

*This project was carried out by M.R.C. Limited, a reputable Canadian research organization.

You can't beat

Home Baking

especially when you remember these simple rules

by GWEN LESLIE

WHAT signals a warmer welcome than a freshly-baked cake? Home-coming school-children can tell you . . . nothing! And guests will probably agree. With a new season's fruit harvest waiting just around the corner to provide fruit and cake desserts, it's time to review your cake-baking technique.

Here are some cake-making tips from the home economics service of the Ontario Dept. of Agriculture:

- All ingredients should be at room temperature for mixing into cake batter. At room temperature, fats cream best and egg whites beat to a greater volume. Cold eggs or cold milk may cause separation or curdling of the creamed mixture.

- All flours are not the same; they are milled from different types of wheat for different types of baking. Cake and pastry flours are much better than other kinds for cake-making. If you must use all-purpose flour instead of cake or pastry flour, use 2 tablespoons less per cup than called for in the recipe. Always sift flour before measuring. The home-maker who is "too busy" to sift flour before measuring may add an extra half cup of flour to her cake and so ruin it. Lift sifted flour lightly by spoonfuls into the measuring cup and level by drawing a knife edge across the top. Do not press flour or shake down into the cup.

- Use fine white sugar unless brown is called for in the recipe. Roll coarse sugar with a rolling pin. If sugar is lumpy, sift before measuring. Measure accurately.

- Modern shortenings cream well and are satisfactory for cakes. Some contain emulsifiers which shorten the mixing time, since no creaming is required. Measure small amounts of fat by the tablespoon. To measure half a cup of fat, half fill the measuring cup with cold water. Add fat, keeping it below the water level, until the water level reaches the one-cup mark. Drain off water. This method gives quick, accurate measure for part cups of fat.

- Prepare pans before starting to mix the cake batter. Use standard size cake pans and fill pans only half full for best results. Cake should rise just to the top of the pan in order to brown well. Do not grease or line pans for sponge, angel or chiffon cakes. For other cakes, line the bottom of the pan with waxed paper. Do not grease the sides of the pan. Spread the batter well into the corners of the pan.

- Oven Management. Place racks at the proper level before heating the oven. Start heating the oven far enough in advance to have a steady, even heat at the right temperature

when your cake is ready for baking. Oven heat tends to be even in the center, so if only one rack is needed, place it at about the middle. If two racks are used, place one slightly above center, the other slightly below center. Heat should flow freely around pans for even baking. Don't crowd the oven, don't place pans directly above one another, and do not place them too near the oven walls or too close together.

A good recipe will state the best temperature and the approximate baking time for the product. If you use glass baking dishes, lower the oven heat by 25°F. or allow a shorter baking time. If your oven has no thermostatic heat control, an oven thermometer will help you maintain the exact temperature.

Is It Done? Four tests will help you know when a cake is done: when the top surface springs back and leaves no imprint from a lightly pressed finger; when a wire cake tester or wooden toothpick inserted near the center comes out clean and dry; when the cake has risen to its full height and has a delicately browned crust; and when the cake (except sponge cakes) has shrunk slightly from the sides of the pan, your cake is fully baked.

Cool Before You Cut. Cool cakes before cutting or removing them from the pan. Cooling helps to set the delicate cell walls of hot cake. To cool most butter cakes, set the cake on a wire rack for about 15 minutes after baking. For proper cooling, air should circulate all around the cake. Sponge, angel food, and chiffon cakes should be inverted when removed from the oven and allowed to hang in the pan for an hour, or until completely cold.

Pienie Caramel Cake

2 c. sifted cake flour	½ c. soft shortening
2¼ tsp. baking powder	Milk*
¾ tsp. salt	1 tsp. vanilla
1 c. plus 2 T. sugar	2 eggs, unbeaten
	½ c. finely chopped nuts

*With butter, margarine or lard, use ¾ c. minus 1 tablespoon milk; with vegetable or other shortening, use ¾ c. milk.

Measure sifted cake flour, baking powder, salt and sugar into sifter. Measure shortening into mixing bowl. Combine milk and vanilla in measuring cup.

Stir shortening just to soften. Sift in dry ingredients. Add milk and vanilla and stir until all flour is dampened. Beat 300 strokes by hand or 2 min. with electric mixer at low speed. Add eggs and nuts and beat 150 strokes by hand or 1 min. with mixer. Pour batter into greased layer cake pans or one large



[Max Sauer Studio photo]

A chocolate cake is always popular.

pan. Bake in a moderate oven at 350°F. for 35 to 40 min.

Caramel Frosting

Melt ½ c. butter in a saucepan. Add 1 cup firmly packed brown sugar and cook over low heat for 2 min. Add ¼ cup milk; continue cooking and stirring until mixture comes to a boil. Remove from heat, cool and add icing sugar until you reach a spreading consistency (about 1¼ to 2 cups icing sugar).

One-Egg Chocolate Cake

4 T. butter	1 c. buttermilk
1 c. sugar	2 oz. unsweetened chocolate, melted
1½ c. sifted cake flour	1 tsp. vanilla
1 tsp. soda	
¼ tsp. salt	

Cream butter and blend in sugar. Sift dry ingredients together and add to creamed mixture alternately with buttermilk. Stir in melted chocolate and vanilla. Pour batter into a greased 8 in. square cake pan and bake in a moderate oven at 350°F. for about 50 min.

Crumb Cake

2 c. flour	1 egg, beaten
1¼ c. brown sugar	1 tsp. soda
¾ c. butter	¼ tsp. salt
1 c. sour milk	¾ tsp. cloves
1 c. raisins	1 tsp. cinnamon

Combine flour, brown sugar and butter and rub to crumbs with fingers. Reserve 1 cup of this crumb mixture, leave remainder in mixing bowl. Stir remaining ingredients into mixture in bowl, mixing well. Spoon batter into a greased 9-in. square cake pan, then sprinkle reserved crumbs over top. Bake in a moderate oven at 350°F. for 45 to 55 min.

Coffee Pecan Chiffon Cake

1 c. sifted pastry flour or ¾ c. sifted all-purpose flour	5 T. salad oil
1½ tsp. baking powder	3 egg yolks
½ tsp. salt	½ c. water
2 T. instant coffee	1 tsp. vanilla
¾ c. sugar	¼ c. very finely chopped pecans
	4 egg whites
	¼ tsp. cream of tartar

Sift flour, baking powder, salt, instant coffee and sugar together into a mixing bowl. Make a well in the dry ingredients and pour in oil, egg yolks, water and vanilla. Stir, then beat smooth with a wooden spoon. Stir in chopped pecans.

Sprinkle egg whites with cream of tartar. Beat until very stiff (much stiffer than for a meringue).

Add batter to beaten egg whites about ¼ at a time, folding gently to combine after each addition. Turn batter into a ungreased tube cake pan (8 in. top inside measure). Cut through the batter once or twice to break large air bubbles.

Bake in a moderately slow oven at 325°F. about 1 hr. or until cake springs back when lightly touched with a finger tip. Immediately after removing cake from the oven, invert the pan over a bottle or small jar and leave until cake is cold. Then loosen cold cake carefully and shake from pan. Frost with the following coffee icing and decorate with pecan halves. If you wish, this cake may be cut in three horizontal layers and filled and frosted with sweetened whipped cream flavored with instant coffee.

Coffee Icing

½ c. butter	1 egg yolk
1¼ c. sifted icing sugar	2 T. cream (about)
1 T. instant coffee	½ tsp. vanilla

Cream butter until light. Gradually blend in about 1 cup of the icing sugar, mix in the instant coffee. Add egg yolk and beat thoroughly. Add remaining sugar gradually, alternating with sufficient cream for spreading consistency. Beat in vanilla.

Orange Layer Cake

2 c. sifted cake flour	¼ c. orange juice
1¼ c. sugar	¾ c. milk
2½ tsp. baking powder	½ c. shortening
¼ tsp. soda	1 egg, unbeaten
1 tsp. salt	1 tsp. grated orange rind

Sift dry ingredients together into mixing bowl. Combine orange juice with milk. Add shortening and ¾ cup of orange-milk mixture to dry ingredients and beat for 2 min. with spoon or, at medium speed, with electric mixer. Scrape sides and bottom of bowl often. Add remaining orange-milk mixture, egg and orange rind and continue beating for 2 min. Divide batter into 2 greased 8-in. layer cake pans. Bake in a moderate oven at 350°F. for 20 to 30 min. When cool, frost with orange icing.

Orange Icing

3 c. sifted icing sugar	¼ c. orange juice
½ c. soft butter or margarine	1½ T. grated orange rind

Cream butter or margarine and add icing sugar. Blend in orange juice and rind and spread icing between layers and over cake.

To Wear While Waiting

No. 9775. Just right for summer days, this cool smock style may be made with sleeves for cooler temperatures. Two other neckline versions are offered. Kangaroo skirt can be made to match or contrast. Misses' sizes 10, 12, 14, 16. Price 50¢.



No. 9577. The wide-yoked overblouse with big patch pockets may be worn with slim kangaroo pants or skirt. Pattern also includes skirt and front-buttoning blouse. Junior sizes 11, 13; Miss 12, 14, 16. 50¢.



No. 9189. Three-quarter sleeves and contrasting inset and cuffs are features of this maternity smock. Sleeve length and stitching detail on the inset may be varied. Skirt has kangaroo styling. Misses' sizes 10, 12, 14, 16. Price 50¢.



Potato REFRIGERATOR BUNS

When you bake at home, Fleischmann's Active Dry Yeast is your most trustworthy aid. Try this step-by-step recipe for moist and tender plain dinner rolls with

thin golden crusts. You can have the dough all ready in the refrigerator for the moment when delicious dinner rolls are just the thing to round out a meal.

You'll need:

- $\frac{3}{4}$ c. salted potato water
- $\frac{1}{2}$ c. granulated sugar
- $\frac{1}{2}$ c. shortening
- $\frac{1}{2}$ c. lukewarm water
- 1 tsp. granulated sugar
- 1 envelope Fleischmann's Active Dry Yeast
- 2 well-beaten eggs
- $4\frac{1}{2}$ c. (about) pre-sifted all-purpose flour

1. Heat potato water (drained from boiled potatoes) stir in the $\frac{1}{2}$ c. sugar and shortening. Cool to lukewarm.

2. Meantime, measure lukewarm water into a large bowl; stir in the 1 tsp. sugar. Sprinkle with yeast. Let stand 10 mins., then stir well. Stir in lukewarm potato-water mixture, eggs and $2\frac{1}{4}$ c. of the flour. Beat until smooth and elastic. Work in sufficient additional flour to make

a soft dough—about $2\frac{1}{4}$ c. more. Knead dough lightly in bowl. Cover bowl closely and refrigerate until wanted. (Dough keeps 2 or 3 days.)

To bake a dozen fresh buns:

3. Punch down dough and cut into 2 equal portions—return 1 portion to refrigerator. Allow other portion of dough to rest until it comes to room temperature. Knead on floured board until smooth. Form into a 12-inch roll; cut roll into twelve 1-inch pieces. Shape each piece into a smooth ball. Arrange, well apart, on greased cookie sheet. Grease tops. Cover. Let rise in a warm place, free from draft, until doubled in bulk—about 1 hour. Bake in mod. hot oven (375°) 12 to 15 mins. Bake remaining portion of dough within 3 days. Makes 2 dozen buns.

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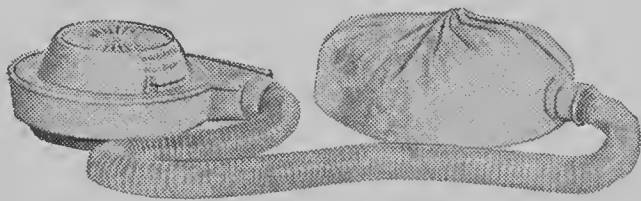
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 beats, mixes, whips...
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Here's the most beautiful, most efficient portable mixer on the market . . . and it has an exclusive accessory that sharpens knives in seconds (optional). Designed with handy beater ejector, detachable cord set and three-speed finger-tip control on the top . . . it is better with batters, gentle with sauces, marvelous with meringue. The Portable Mixer—new from Canadian General Electric Company Limited.



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CANADIAN GENERAL ELECTRIC
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(Use order coupon p. 65)



No. 9616

No. 9616. Party-pretty, this full-skirted dress features tucked bodice, high round neck, elasticized set-in puffed sleeves and a self-sash. Make the sleeveless version in cotton, or choose the straight-cut sleeves. Sizes 2, 3, 4, 5, 6, 8; 40¢.

No. 9492. This toddlers' dress with its full skirt and Peter Pan collar may be made with a straight yoke, eyelet and ribbon trimmed, or yoke may be scalloped and appliqued. Scoop-necked slip pattern has ruffled hem, buttoned shoulders. Toddlers' sizes ½, 1, 2, 3. Price 40¢.

No. 9749. Back buttons anchor the wrap-around closing of this full-skirted dress with set-in midriff. The large braid-trimmed square collar may be omitted if preferred, leaving a shallow-scoop front, V-back. Sizes 2, 3, 4, 5, 6, 8. Price 40¢.



No. 9492



No. 9749



No. 9715. This miss can kitten-sit and sunbathe in her shoulder-bowed romper. From the same pattern you can also make a yoked romper with set-in sleeves, collar; and a lace-trimmed pinafore. Sizes ½, 1, 2, 3; 40¢.

Spring Signs

Farmer

They call a man a fool
That rises with the dawn
And toils till dusk
In dirt and sun,
In wind and dust,
To reap a living
From the earth's soft crust.

But he is king!
Without a crown,
That toils with hand and heart;
For great things come to him
That works the soil,
The happiness and peace
Surpass the toil.

—W. R. McNEIL

Spring Song

The cow bells tinkle softly in the night,
A coyote wails—then all is soft and still;
The first, wild geese wing north in
V-shaped flight,
And dawn finds smiling crocus on the
hill.
The Red Wing bubbles forth his liquid
song,
Beside the slough where stately mallards float;
A little lad, with tools, and purpose
strong,
Works tirelessly to build himself a boat.
The juicy Balm-of-Gilead buds are
sweet,
Their perfume floats about on every
breeze;
The hopeful farmers toil at seeding
wheat,
And baby leaves uncurl on verdant
trees.
The landscape shines — all free on
winter's haze,
Warm sunshine glows, and happy
waters sing;
Wee children pause with faces rapt,
to gaze,
Beholding all the wonders of the
spring!

—ELMA HELGASON

Clothed in Spring

The morning-born maiden of spring-
time
Wears spring like a gossamer gown;
On her feet, she floats sandals of sun-
shine;
On her head, evening stars as a crown.
Her skin's the pearl-white of the lily;
On her legs, she wears stockings of dew;
In her hand, she carries a chalice
Of refreshing, sparkling brew
That she pours o'er each leaf and each
flower;
Gives to farmers to plough through
their sod;
Lends to druids to sprinkle through
forests,
And, still brimming, returns it to God.

—RUTH WEBER

Wake Up!

The silver fingers of the Rain
Are beating on Earth's weathered door.
The sleeping seedlings wake and yawn,
Sit up and listen, yawn once more.
Grown tired of waiting at the door,
Rain pokes pale fingers through the
cracks
And tickles all the sleeping seeds
Upon their chubby little backs.
The seedlings chuckle, wriggle, climb
Dark stairs, but Rain, the tease, has
fled —
Through opened door the golden Sun
Pats every seedling's tiny head!

—FRANCES GORMAN RISSER



in the 1961 Farm Census

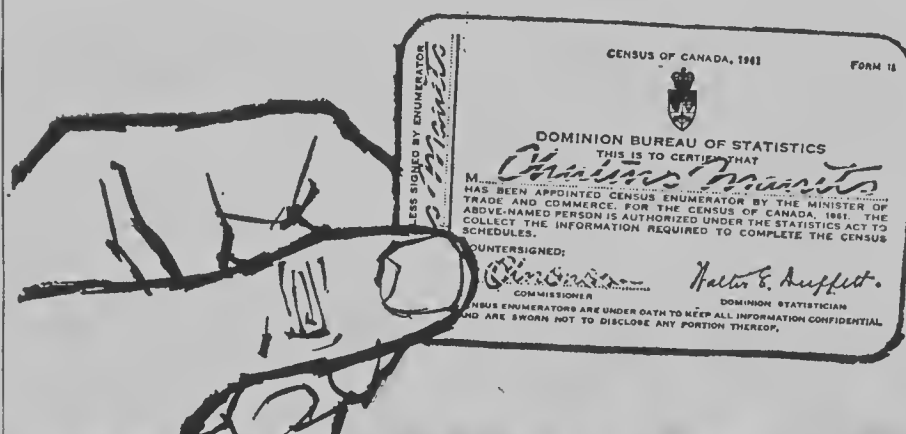
In June, Census Takers will visit you to ask questions about your farm and family. The answers you give will be tabulated to provide facts about farming in local districts, the provinces, and Canada.

These facts will aid practising farmers, farm co-operatives, and organizations, as well as governments,

to assess farm problems and to plan for improvements.

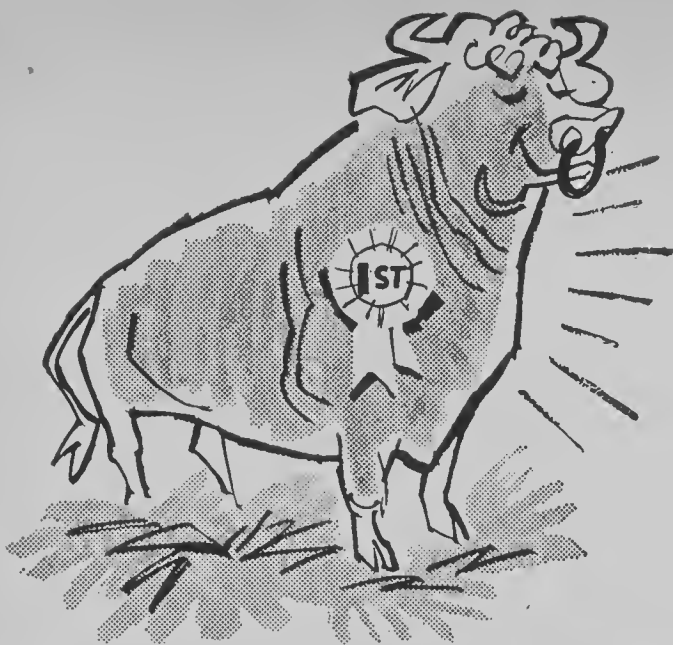
To speed the enormous task of taking the Census, forms are being sent to all farmers before the Census starts on June 1. Please fill them out as accurately as possible so that your answers will be ready when the Census Taker calls.

Remember— all information you give is kept in strict confidence—and you benefit Canadian Farming when you HELP CANADA COUNT!



DOMINION BUREAU OF STATISTICS

Published under the authority of the Honourable George Hees, Minister of Trade and Commerce



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Country Boy and Girl

Woodland Rhymes

by EDITH MOSHER

THE sky was blue, the birds sang, too; the sun shone bright and clear. The melted snow all had to go, for spring at last was here.

Young Jenny Wren and her mate Ben were very hard at work, building a cozy little nest, a task no bird would shirk. Between the birdhouse and the hedge with busy wings and legs, they dashed and, as they worked, they sang, of eggs, oh, lovely eggs!

But Jenny was particular, a housewife, there's no doubt. And every twig poor Ben fetched in, that Jenny threw it out!

"Oh, dear," chirped she, "Ben, can't you see? This trash will never do. I'll have to build this nest myself; I can't depend on you!"

Straw, feathers, string, no single thing that Benny found would suit her. His bossy wife just ruled his life, but he would not dispute her.

Once more he tried, then flew outside. He heard his Jenny twitter, "I wouldn't trust him with an egg. I'll get a baby-sitter!"

"I'll please her yet," chirped Ben, "I'll bet I'll make her happy, and show those nestlings, when they hatch, that they've a clever pappy." With that he flew a mile or two, to where, one day while winging, he'd seen a big gray hornet's nest upon a birch tree swinging.

"That empty nest will be the best, the softest, warmest blanket that ever lined a birdie's nest," he said. Then he stopped to yank it.

There was a rip. Off tore a strip. Ben flew off with a chatter. "I'll bet she won't find fault with this." But something was the matter . . .

The hornets were at home. That dome, he saw, was occupied. Now like a storm, the angry swarm came streaming right outside.

Each angry hornet that Ben could see brought uncles, aunts and cousins, brought all his brothers, sisters, friends. They flew at him by dozens.

Poor Ben Wren beat a swift retreat. He saw he'd made an error. Their buzzing wings and painful stings just filled his brain with terror.

He reached once more the birdhouse door and saw it opened wide. His swift swoop left the hornet troop behind and he was safe inside.

He tried to speak, 'twas just a squeak. His wings were weak as butter. He dropped the "paper" from his beak. It made a perfect shutter. The door was sealed. Then Jenny squealed, "Oh, Ben. You are the bravest." She gave a sob. "You fought that mob. Then brought a door to save us!"

The hornets then went flying past. Ben cut a fancy caper. Said Jen, "this stuff is soft as fluff. It's just like tissue paper. We'll use it all to line our nest. For though it's soft, it's sturdy. Our little ones shall have the best. You are a darling birdie."

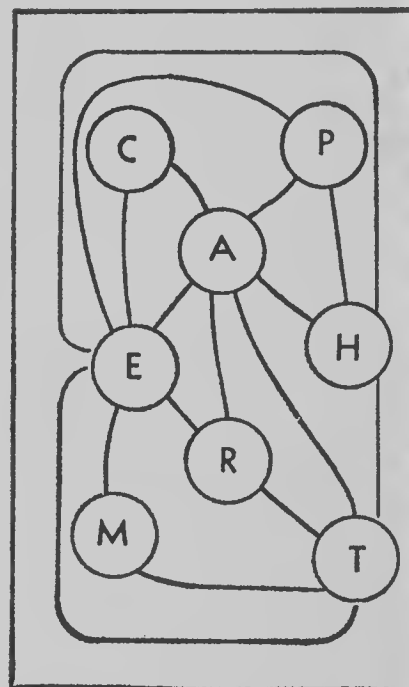
Then Bennie sang, his sweet voice rang. His wee wife was contented. A child ran out, then gave a shout. "Our birdhouse has been rented!"

Cross Roads

by MAUDE HALLMER

To solve this cross road quiz, start from certain letters and move along to the adjoining letters. Try to spell seven four-letter words to fit the following definitions:

1. Separate
2. To ensure
3. A two-wheeled vehicle
4. Rodent
5. Injure
6. Juicy fruit
7. Run swiftly



Answers:

1. Part; 2. Trap; 3. Cart; 4. Hare; 5. Harm; 6. Pear; 7. Race.

Mistaken Identity

*I caught a funny little fish
About a month ago.
And he had stumpy little legs
Where back fins ought to grow.
This morning he was missing
Though I looked high and low.
That darn green frog beside his dish
Has eaten him, I know!*

—ROSEMARY BREASSLER

Young People



Club Round-Up

TEN fortunate young people traveled to the capitals of two nations last month. They were the 4-H members—one from each of the 10 provinces—selected to attend this year's National 4-H Conference in Washington, D.C.

They assembled in Canada's capital city of Ottawa, where they received citizenship certificates and met the United States ambassador to Canada, Mr. Livingston Merchant. The following day they toured the United Nations in New York. Their next stop was the U.S. capital, Washington, D.C., where they joined 200 U.S. 4-H members. During the conference they met President John F. Kennedy and other U.S. leaders, and toured historic sites.

Canadian delegates were: Glenn Stanley, Trinity Bay, Nfld.; Myrna Coles, North Milton, P.E.I.; John R. Longley, Kingston, N.S.; Judith Waddell, Lakewood, N.B.; Robert D. Johnston, Stanstead, Que.; Roy Buchanan, Thamesville, Ont.; DeLores Myers, Grandview, Man.; Douglas McArthur, Watrous, Sask.; Jessie Ingledew, Hinton Trail, Alta.; and John Burbee, Dawson Creek, B.C.

Quebec

Winter storms in Montreal caused such serious damage to trees in public parks that the city's Parks Service asked Quebec 4-H club members for help in restoring order to Mount Royal Park. In March, in fulfillment of their pledge to protect the province's trees, 4-H members from several rural districts streamed into the city to help in the clean-up job. They worked an entire day at the park under the direction of their own leaders and officers of the city's Trees Service.

Ontario

As a result of the farm accident survey conducted 2 years ago by Ontario 4-H clubs, a 4-H automotive and farm safety club was organized in Durham County. The club studied farm and highway safety measures under the guidance of provincial police and members of the Ontario Department of Agriculture's extension service. Members were scored on meeting attendance, cost records, a safety driving quiz, an automobile or truck safety check and a safe driving test. The club expects to include training in life saving, fire prevention and fire control in this year's program.

Nova Scotia

The number of swine clubs is increasing in Nova Scotia. In one Cumberland County district club, members weaned an average of slightly over 10 pigs in each of 23 project litters. They made a profit of \$8.98 on each hog marketed after paying feed, housing, medicine, trucking and other costs. This year the club

program will be enlarged to include studies in carcass evaluation.

Manitoba

A woodworking project is the most recent addition to Manitoba's 4-H club program. The first such project started in the rural-urban community of Pointe du Bois with the help of the local community club. Members first learned how to care for and use woodworking tools. Now the 10 boys in the project are turning out simple woodcraft articles. As members gain experience the course will be broadened to include advanced woodworking.

Alberta

Alberta 4-H members scored a first by holding a week-end reunion of 4-H delegates at the Banff School of Fine Arts. The gathering, organized by the University of Alberta's 4-H Alumni Club, included former Alberta delegates to National 4-H Club weeks, State 4-H Congresses in Montana and National 4-H Conferences in Washington. The group discussed the 4-H program, enjoyed both a social program and a tour, and made tentative plans for a second such gathering this coming June. ✓

Treasure Hunt

by EVELYN WITTER

HERE'S a new way to have a treasure hunt at your next party. It takes a little more thinking on the part of the players than mere directions. Maybe that's why it's more fun too!

Place different objects at a number of spots on the way to the treasure. Then write clues for your treasure hunters in the form of riddles. These clues should suggest where the hunters might look for the articles that mark the treasure trail. They should also be placed near those objects.

Here is one example: "On a nearby tree, you'll find a tablet you can't write on." The clever player will look for an aspirin which, of course, is a tablet you can't write on.

You'll be able to make up your own riddles to suit the object. But here are some suggestions to start you off.

1. A boat that can't float (gravity boat).
2. Eyes but can't see (potato).
3. Legs but no feet (pair of trousers).
4. A face without features (a clock).
5. A ball without bounce (ball of twine).
6. A plane that can't fly (carpenter's plane).
7. Full of holes but holds water (a sponge).
8. Paste that won't stick (imitation jewelry).
9. Tongue but can't talk (shoe with a tongue).
10. Only one eye (needle).
11. A mouth that can't speak (jar).
12. Lead but not leaden (pencil). ✓

Are You a Good Friend?

by MARY ALICE YOUNG

FRIENDS are very important to each of us. We need friends to talk with when we have problems. And it's good to have someone with whom we can discuss our books, school and pleasures.

Making friends may be easy. Keeping friends is more difficult. If we betray a friend's confidence or hurt a friend's feelings, we may lose his or her respect and friendship.

How do you think you rate as a friend? How do you look through the eyes of others? Take this test. Answer each of the ten questions with "Yes" or "No". Give yourself 10 points for each "Yes" answer. Then check your friendship rating at the end of this quiz.

1. Am I always considerate of my friends' feelings?
2. If a friend confides in me, and asks me not to tell a secret, do I always do as he or she asks?
3. Do I always think twice before I make a remark about a friend?
4. Do I try to understand the problems of my friends and help whenever possible?
5. If a friend gets a good mark in school, do I offer a compliment and congratulations?
6. Am I always truthful to my friends?
7. If I'm responsible for doing something wrong, do I admit it and say, I'm sorry? ✓

8. Do I try not to borrow the property of others; but if I should, do I return it in good condition?
9. When playing with friends, if I cannot have my own way, do I keep my temper under control?
10. If I am having fun with one friend and another comes along, do I ask him to join us?

Now for your score and rating. This will tell you what kind of a friend you really are. Multiply each "Yes" answer by 10.

Ratings:

100. I'd like to be your friend. I'm sure you must be very popular but don't let that popularity go to your head. Keep on being a good friend by keeping the rules.

90-70. You are well-liked as a rule but there is room for improvement. An important rule in making and keeping friends is never to say or do anything purposely to hurt another. Try, won't you?

Under 60 points. If you want your friends to like you and to trust you, you must change some of your habits. Have you been repeating secrets? This is a sure way to lose friends. Never say anything to a friend that you would not want a friend to say to you. It's up to you! ✓

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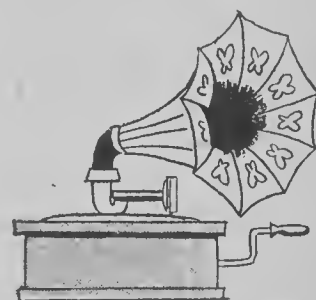
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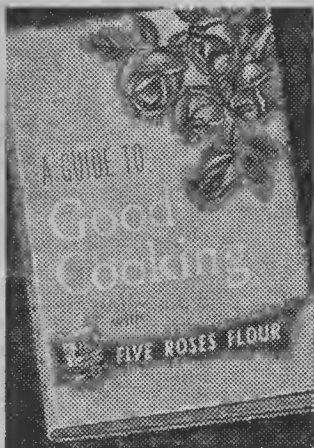
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The sideboard and the spinning wheel are two of many pieces to which Jean Keys gave new life. The graceful jug on the sideboard came from her kiln.

Useful Hobbies

by IRENE McCAUGHERTY

FOR many people, hobbies satisfy an inner need to express creative ideas in useful pursuits. Jean Keys, of Lethbridge, belongs to this group. Ask her how she started on her hobby program and she'll tell you she was influenced by her mother. "My mother was always doing something around home. She could make cheesecloth curtains look good."

Jean has several hobbies but she's especially enthusiastic about refinishing antique furniture and ceramics.

She buys most of her antique furniture pieces at auction sales for bargain prices. Because most of them need some repair, she takes them apart, piece by piece, once she gets them home. Next she reglues them, recovers them if necessary. Then she completely refinishes the wood surfaces. It's hard, tedious work but as far as Jean is concerned, it's effort well spent to see beautiful walnut, mahogany and rosewood surfaces restored to their original beauty.

Jean acquired practical experience by attending woodworking classes at which she made the cobbler's bench in her living room. But she also learned from the books she found in the local library, and by experimenting on her own. Now some of the Keys' furniture performs on stage when local groups need "period" pieces for their plays.

From rummage sales she gathers material for braided rugs. She buys quantities of woolen garments, particularly coats. These are cleaned and the linings removed. Then Jean cuts the coating fabric into strips ready for braiding. Her attractive living room rug, measuring 9 by 12 feet, is braided. She braided another one measuring 5 by 7 feet, and a runner 3 by 14 feet. From experience she found it best to accumulate enough material of individual colors. This allows her to work out an informal pattern.

Coat linings make into costumes for Christmas and other plays. Boxes, stored in the Keys' attic, contain ma-

terial for costumes in variety. Jean laughingly admits she can costume any character from a duke to a turbaned, pantalooned rajah.

THE pottery pieces found in this home tell another story, one that begins downstairs, in a basement craft room. Here drab-looking sacks of California clay are stacked against the walls. Shelves hold painted and unpainted forms and the heavy plaster molds, some of which weigh 40 pounds. Two old washing machines frequently hold the cobwebbed clay mixture that reveals a proper mix. At one time Jean had three kilns. Now she has only one.

"It takes 2 or 3 firings to process and finish one item," she explained. "After the clay has been molded, the piece is removed, dried and fired at 1,940 degrees. The second time it is fired at 1,840 degrees for 10 hours." She says that actually she likes decorating the pottery best of all.

She sells some of her work at Jasper. And, for 3 years, she taught classes in ceramics five times a week. As the classes grew in number and required more and more time, she finally had to give them up.

NOW she is experimenting with juniper root carving and enameled jewelry on a copper base. Both demand patience. For example, the carving needs a scraping, sanding and polishing process that is repeated many times over, until the piece has a satin-like surface. The jewelry's fine design needs a craftsman's touch and careful firing.

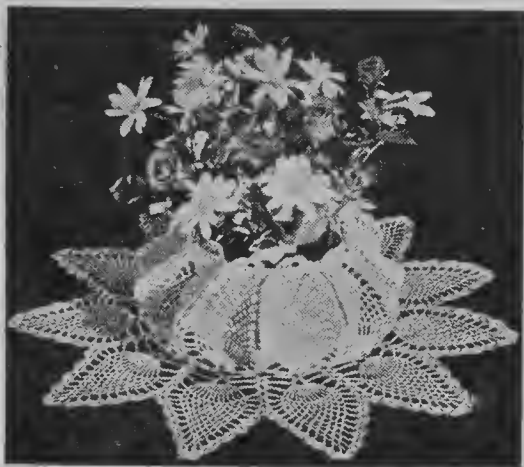
Sometimes she feels the need for a more restful and less demanding hobby. Then she returns to one of her first interests—sewing for herself and her family.

Jean Keys believes that women need to indulge in hobbies, not as busywork, but rather as avenues to the development of individual talents. And the wisdom of her belief is to be found in the pleasant atmosphere of her attractive home.

HANDICRAFTS

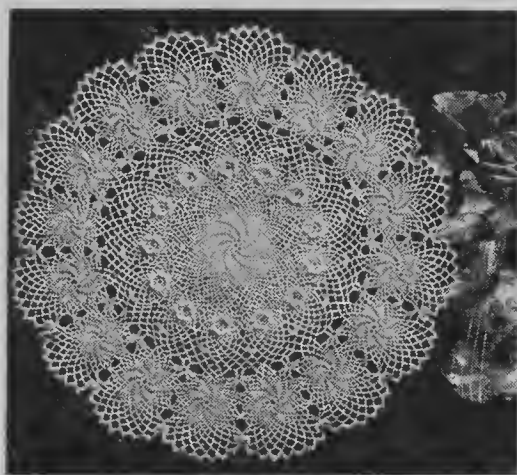
Doilies

Leaflet No. C-S-586, 10¢, features 2 decorative doily patterns. Both the Poinsettia (top), and the Mosaic (at bottom), are crocheted.



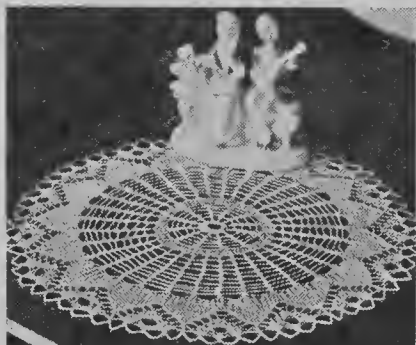
This lovely flowerpot cover will flatter your bouquets in any season. The base measures 18 in. from point to point. Crochet instructions are given on Leaflet No. C-S-616, price 10¢.

You may choose from 3 thread sizes and hooks to make this Rose of Erin doily in 3 sizes: 15, 18 or 20 in. in diameter. Crochet directions are given on Leaflet No. C-S-390; 10¢.



You can crochet this demure doll's dress and hat from instructions on Leaflet No. C-A-123; 10¢. Directions for a doily in a similar design with the same ruffle effect are also included.

Knitting instructions for this mat are available in Leaflet No. K-7403; price 10¢. The finished mat measures 11 in. in diameter.



Note: For those with incorrect Leaflet No. K-7517, corrected pattern leaflets are now available free.

For handicraft patterns pictured above please address your order to The Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

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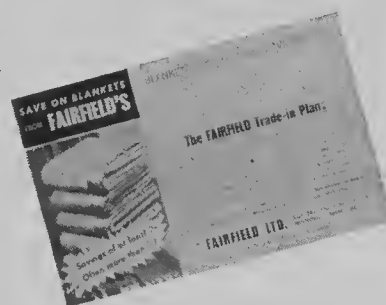
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Safe Community Meals

"WE just wouldn't have enough women working in the kitchen to serve a meal!" was one farm wife's response to Dr. Norman Campbell's prime rule for serving safe community meals.

Speaking with Miss Louise Smith during conference week for farmers and homemakers at the University of Manitoba in March, Dr. Campbell said, "Don't participate in food preparation if you have any cuts, or any symptoms of a cold or stomach flu."

The nasty ailment we call food poisoning may be one of two complaints, he said. Food intoxication, caused by staphylococci, produces symptoms within 1½ to 3 hours after eating impure food; food infection, most often caused by salmonella toxins, becomes evident 10 to 12 hours after eating. The rules for preparing safe meals for groups of people are designed to prevent the growth of these organisms in the food to be served.

Safe Food. 1. Use only pasteurized milk and cream, and ice cream, butter and cheese from pasteurized milk and cream. Buy inspected meat and poultry.

2. Do not let perishable foods stand longer than 4 hours at room temperature. Refrigerate them.

3. Because they spoil very easily, prepare cream sauces, custards, and gravy just before serving them.

4. Handle eggs, meat (especially ground meat), fish and poultry with the best sanitary care possible and refrigerate if not to be served immediately.

5. Prepare sandwiches and other cold foods for buffet service not more than 4 hours ahead unless they can be refrigerated.

6. Hot prepared foods should not be held longer than 2 hours, including the serving period.

7. Don't serve cream puddings, cream pies or cream puffs unless you can store them in the refrigerator.

8. Serve only fresh, frozen or commercially canned meats, poultry, or vegetables (except tomatoes). Home canned meat, fish, poultry or vegetables are only safe if processed for the approved time in a pressure canner.

9. If you do not have adequate refrigeration in your community kitchen, foods should be held in home refrigerators and brought just in time to serve. If hot foods cannot be kept at temperatures above 140°F. they should be cooked at home and brought to the community kitchen just in time to be served.

Safe Dishwashing. Arrange for sufficient work space, allowing more table space for soiled dishes than for clean ones. Hot water is important and you will need plenty of it. It should register 110°F. to 120°F. for hand dishwashing and 180°F. for sanitizing. Dishwashing equipment and supplies ought to include rubber scrapers for removing food from dishes; three dishpans or a three-

compartment sink, for washing, rinsing, and sanitizing dishes and utensils; a good detergent and a good sanitizing agent; an abundant supply of clean tea towels; and wire racks if dishes are sanitized in 180°F. water.

The procedure recommended for safe dishwashing is as follows:

- Scrape dishes to remove food particles. Soak utensils which have held eggs, cheese, meat or starchy foods in cold water.

- Wash dishes in clean water and detergent as near 120°F. as possible.

- Rinse dishes in clean water.

- Sanitize all dishes, silver and utensils:

- (a) By immersing in water at 180°F. for 2 minutes, or

- (b) By immersing in a sanitizing solution for 2 minutes. One-quarter ounce (½ tablespoon) of chlorine bleach per gallon of water provides an effective sanitizing solution.

Good Housekeeping. Wash table tops and work surfaces every time they are used. Wash equipment promptly and maintain it in good condition. Keep kitchen free from flies, rodents and cockroaches.

Safe Food Handlers. DO wear clean, washable dresses.

DO wash your hands often with soap and warm water, as the staphylococci bacteria are always present on the skin. Hand washing is especially important after using the toilet.

DO keep your hands out of the food as much as possible and away from dish surfaces which people will touch with their lips. Pick up glasses at the base and silver by the handles.

DON'T handle foods or dishes while you have an open sore or boil on hands or face.

DON'T handle foods or dishes if you have a sore throat or recently suffered from diarrhea.

DON'T use cooking spoons or forks to taste the food. Ladle some of the food from cooking spoon or fork into a teaspoon and wash the teaspoon after using it.

DON'T lick fingers while working with food.

DON'T return to handling food after scratching your head or face before washing your hands.

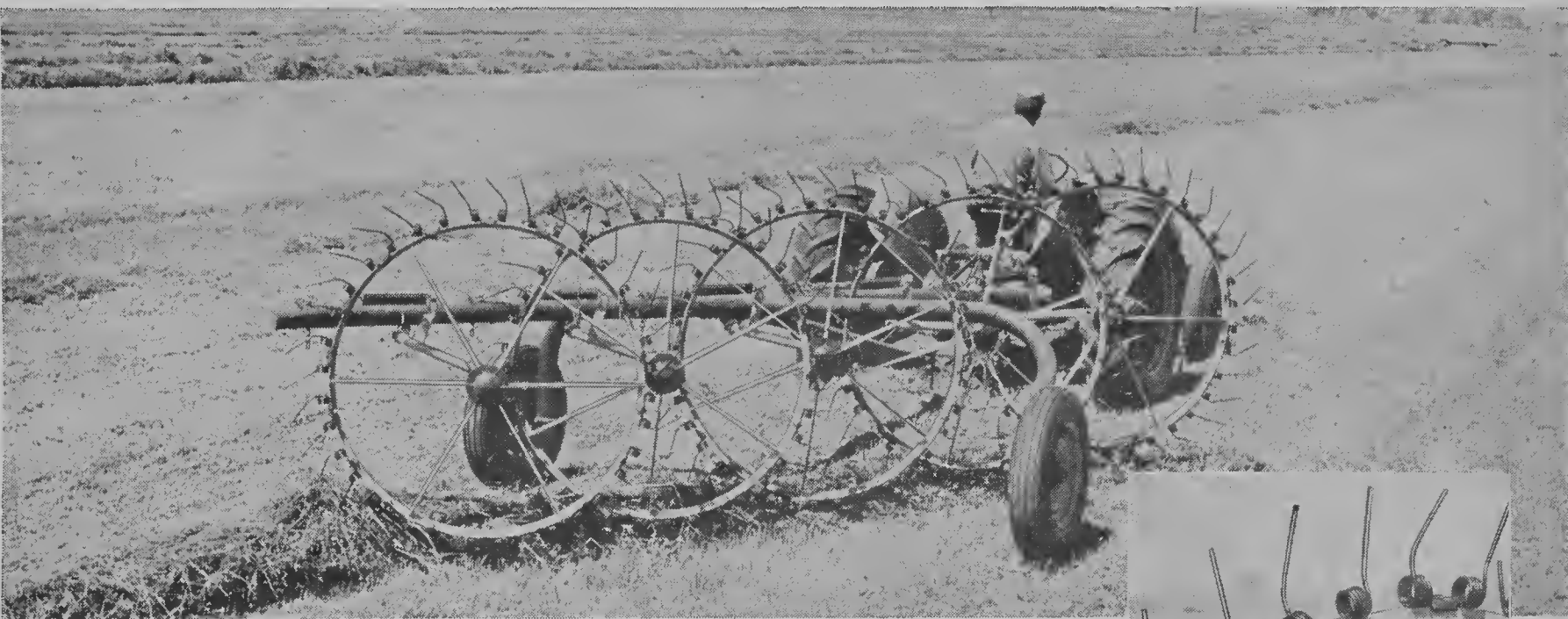
DON'T smoke while preparing food or in the kitchen area. Always wash your hands after smoking and before handling food.

DON'T sling tea towels over your shoulder between use for drying dishes.

Sanitary Equipment. Chipped and cracked dishes and cups from which the glaze has worn off are not sanitary and should be replaced. Chipped enamel cooking pots and ones repaired with "mendits" are not sanitary and should not be used.

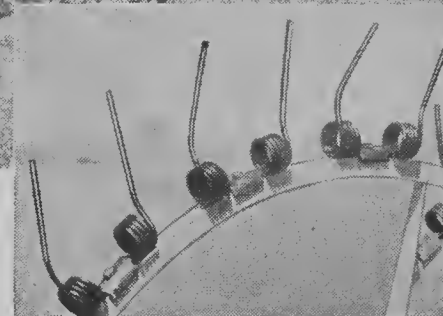
If safe dishwashing is so difficult that it will not be properly done or if there are not enough sanitary dishes, consider the use of paper dishes.—G.L. V

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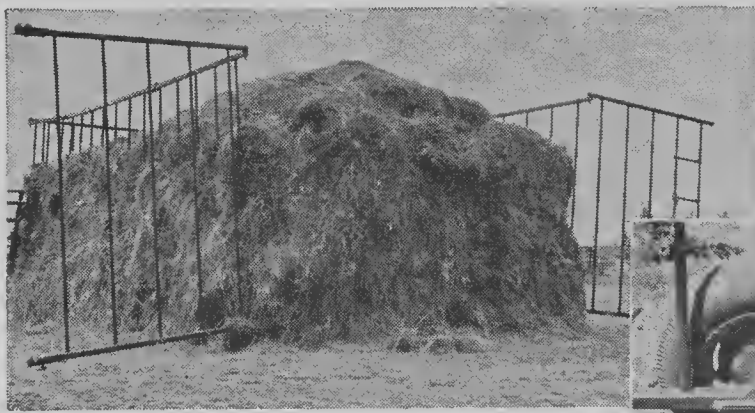
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GENTLE ACTION IS THE SECRET! Spring steel teeth gently pick up ALL the hay and build fluffy, open windrows. Hay velocity with the M5 is 45% lower than with ANY bar-type rake. Hay travel is shorter, too. The result is higher quality hay with less leaf shatter and more food value.



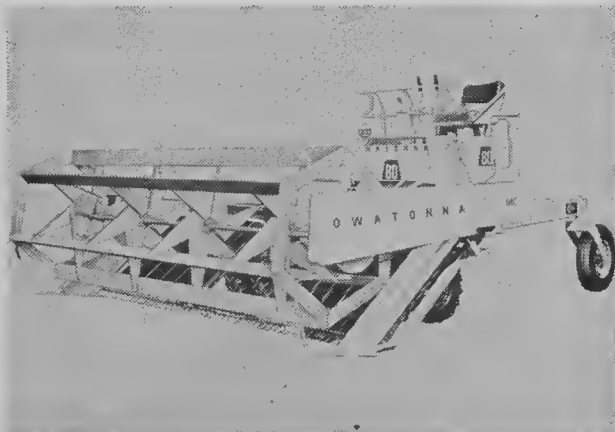
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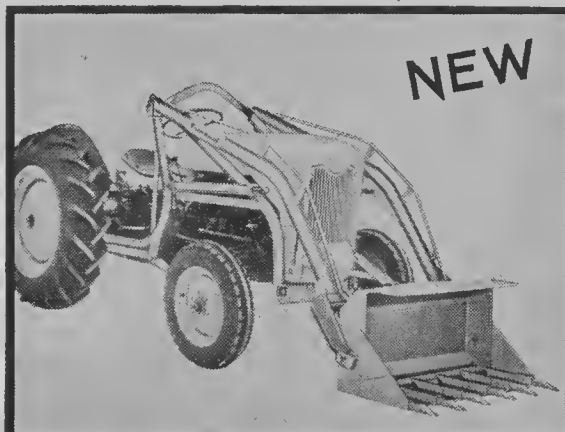
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What Farm Organizations Are Doing

CFA PRESIDENT QUESTIONS PROPOSED SUBSIDY AGAINST GRAIN

Canadian Federation of Agriculture president H. H. Hannam, in commenting on the report of the Royal Commission on Transportation, stated that there can be no justification for payment of a Federal subsidy to the railways which is attributed to grain traffic.

"Although we do take issue with the Commission in this one major respect," Mr. Hannam said, "the first installment of the Commission's report would indicate that it is doing a responsible and constructive job. Its analysis is a great step forward toward developing a sound, long-term transportation policy for Canada."

Mr. Hannam pointed out that the Commission's report thoroughly discredits the railways' contention that alleged losses on moving grain are the only significant inequity in the railway rate structure. The report clearly shows that there have been increasingly inequitable increases in many rail rates. More than this, it identifies passenger traffic as far and away the greatest money-loser in the

railway operation—a problem the railways were content to ignore. They suggested it could be left to them as a "management" problem without implications for public policy or subsidy. "Fortunately," Mr. Hannam said, "the Commission has very properly come to grips with the passenger traffic problem."

Referring to the Commission's recommendation that the railways be paid a subsidy on grain hauling of \$22.3 million, based on 1958 experience, Mr. Hannam stressed that two-thirds of this amount consists of "constant-costs." This means that the Commission is proposing to charge to the account of the grain producers, \$16.3 million of subsidy to cover general railway overhead without any regard to the contractual nature of the Crow's Nest Pass Agreement, or the very great benefits that have accrued to the railways by virtue of this agreement. As Commissioner René Gobeil has pointed out in his minority judgment, there is no validity or equity in such a procedure.

"What it comes to," Mr. Hannam said, "is this: The historic rights of

the western producer to have his grain hauled at Crow's Nest rates, as a matter of contract and as a matter of basic and valid national policy, would, if the Commission's majority recommendation in this respect is accepted, be compromised and endangered, and be a subsidy wrongly charged to grain producers. This would be done in the interests of meeting an out-of-pocket loss to the only private business involved—the CPR—which on the Commission's own calculations amounts to only \$2 million a year—a marginal sum in relation to total freight revenues of some \$450 million annually."

"Surely," Mr. Hannam said, "Parliament would not compromise the legitimate position of the grain producer in so important a matter for such considerations." ✓

WANT RAILWAYS UNDER PUBLIC OWNERSHIP

Top officials of the Farm Union organizations in each of the three Prairie Provinces have voiced strong objections to some of the conclusions and recommendations of the MacPherson Royal Commission on Transportation after meeting together to consider them.

"Farmers reject the idea that grain should be singled out as a source of alleged losses to the railways," said National Farmers' Union president, A. P. Gleave, in a statement follow-

ing the meeting. "The railways have failed to prove that they are losing money on grain shipments," he said, "but the Commission has accepted their figures, although it admits that they are not complete."

"Nor has the Commission taken into consideration the tremendous privileges and benefits granted to the CPR under the Crow's Nest Pass Agreement, which was a voluntary agreement entered into by the CPR and not imposed by law," he said. "It was merely laid down in law to guarantee that the CPR would not welsh on it—something the CPR is now trying to do," Mr. Gleave added.

"Furthermore," Mr. Gleave stated, "the alleged losses on grain transportation of \$2 million for the CPR and \$4 million for the CNR do not warrant a subsidy of \$22.3 million. Railways carry bulk goods such as grain and coal, or ore, at lower rates in order to reduce overhead expenses on other goods. It is not a function of government to guarantee railways profits on specific items."

"We disagree with the Commission when it says that railways should be operated for private profit," Mr. Gleave declared. "Railways are a public utility and should be operated as such in the interest of the whole economy."

He expressed regret that the Commission so far has not looked at the possibility of nationalizing the CPR



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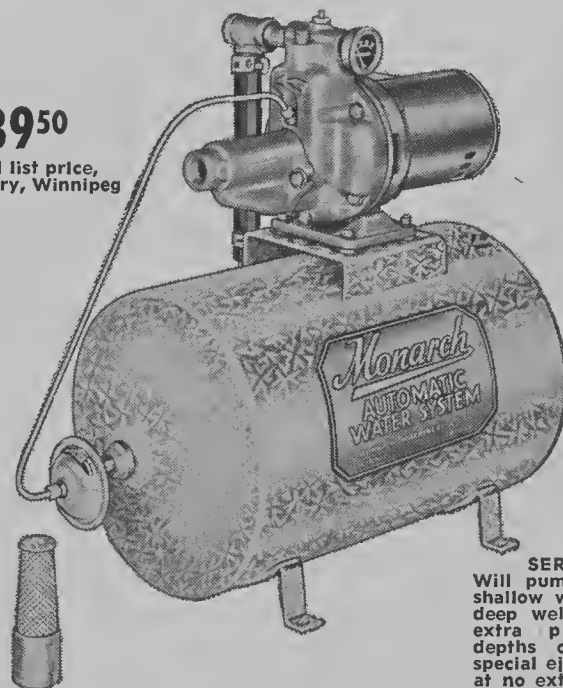
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What Farm Organizations Are Doing

and integrating it with the CNR to make a single national transportation system and thus eliminate costly duplication of services.

"A publicly owned railroad system would be the best guarantee that the abandonment of any branch lines would be considered not merely from a profit angle, but also from the point of view of what effect it would have on the local communities," Mr. Gleave said. "No branch line should be abandoned without permission of an independent regulatory body which would hold hearings to give local people an opportunity to present their views."

Said Gleave: "It is high time that we do what most other countries have done from the start and bring our railways under public ownership."

These objections were forwarded to Prime Minister Diefenbaker on behalf of the group. ✓

OFU PRESENT RECOMMENDATIONS ON EDUCATION

The Ontario Farmers' Union, in a brief to Ontario Minister of Education, the Hon. John Robart, charged that a fictitious image of free education has been established. While this may have had some merit, the brutal fact remains that parents do not know how much it is costing them to educate their children. At the same time, the brief continued, children no longer know the financial costs involved in giving them a good education.

"This," we feel, "is essential so that the child will realize his obligation to the educational system of which he is a part, and then take better advantage of the opportunities instead of feeling that the world owes him a living."

The brief made these specific recommendations:

1. Farmers be relieved of the extremely high tax burden for education purposes.
2. The Department of Education establish a more restricted list of text books of better calibre in order that a uniform course of study in basic subjects will be assured.
3. There be a return to the practice of departmental examinations for grade 8.
4. Immediate steps be taken to establish trade, technical, vocational or agriculture schools in several of the more densely populated counties.
5. The student loan fund be broadened in scope to include students wishing to continue their studies in places other than at a university.
6. The Ontario Hospital Insurance family plan be extended to include all students over the age of 19 years who are financially dependent upon their parents.
7. The Department of Education offer suitable plans for erecting new school buildings and employ architects to be loaned to local school boards when desired.

8. All traffic be required to stop when students are entering or leaving school buses.

9. The school curriculum provide a thorough knowledge of the "three R's" with as few frills as possible, and that teacher standards be improved. ✓

FARM ORGANIZATIONS AT FARM MACHINERY ENQUIRY

The Canadian Federation of Agriculture, in a brief to the House of Commons Standing Committee on Agriculture, which is currently conducting an enquiry into costs of farm machinery, stated that "farmers are unanimous in their belief that prices of farm machinery, equipment, repairs and services are excessive. It is quite clear, however, that the sorest point among farmers is not so much the cost of new machines as the cost of parts and service. In this area, farm feelings vary from dismay to outrage."

The CFA also pointed out that delays and difficulties in obtaining parts were a very real item of cost to the farmer. "Over a period of less than 13 years, item after item of farm machinery parts have shown increases that do seem out of line with general changes in price levels. We have no doubt," the brief continued, "that the answer to this problem of high costs of repair and replacement parts lies primarily in better organization of repair and distribution facilities, and in reduction of model changes and standardization of parts."

The CFA brief concluded with these recommendations:

- That a close watch be kept on the industry to guard against practices related to monopoly or restraint of trade, and that such practices be dealt with under the combines legislation.
- That greater standardization of farm machinery parts be achieved within the industry.
- That there be a considerable lessening of the practice of planned obsolescence, whereby new models are frequently introduced, outdating relatively new machines.
- That a study be conducted as to how a greater degree of standardization and interchange of parts might be carried out.
- That a Federal-Provincial program of testing stations and research facilities for farm machinery testing across Canada be established.
- That farm machinery administrations be established in each province to work with machinery companies in the development of improved patterns of dealerships, and repair and parts services.
- That the provinces establish strict legal requirements regarding the availability of parts, and a system of licensing dealers.
- That grade standards be established for rubber tires for farm machinery, as well as automobiles and trucks.

(Please turn to page 78)

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You may not see any merit in confessing your sins to a priest, as Catholics do.

Perhaps you think as some do, that it is a humiliating practice which Catholics themselves would not observe if the Church did not require them to do so. And you may well wonder what effect, if any, such confession has upon the spiritual life of the individual.

We suggest that you turn the pages of your Bible to John 20:21-23 and read Christ's commission to the Apostles: "Whose sins ye shall forgive, they are forgiven them; whose sins ye shall retain, they are retained."

We might cite the fact that Christ, in this command, instituted the Sacrament of Penance, or Confession, and that Catholics all over the world have been going to Confession for the 1900 years since. We might point out that ALL Christians observed this Sacrament for the first 15 centuries of Christendom.

But instead we invite you to look into and study the faces of the throngs of people coming out of Catholic churches everywhere in the dusk of a late Saturday afternoon. The sense of guilt which may have clouded their features going in is no longer there... for their sins have been forgiven and the light of God's peace shines from their eyes!

Confessing our sins to another human being may indeed appear to be a humiliating thing. But if only a question of personal pride were involved, we should have to admit that the sins themselves are surely more humiliating than the confession of them. For Catholics, this inward humiliation—

this sense of guilt—is overcome by God's promised forgiveness, conferred through the Sacrament which His divine Son instituted for that purpose.

If you are not a Catholic and have never been to Confession, you cannot appreciate the joy that a true

Confession can bring to the heart of a human being. You cannot imagine the load it can lift from a tortured mind. You cannot realize the influence it can have on your life in every sphere.

Nothing in Holy Scripture is more specific, more positive, than Christ's instruction concerning confession and forgiveness of sin. And even though you may not wish to follow the example of your Catholic neighbor in this respect, we think you will be tremendously interested in a pamphlet on this and other Sacraments. We will be glad to send you a copy free on request—in a plain wrapper. And nobody will call on you. Write today—ask for Pamphlet No. CY-5.

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Continued from page 7

MacPHERSON REPORT

mission also recognizes any abruptly implemented program of rail line abandonment would cause serious dislocations. It suggests, therefore, a period of 15 years as being a reasonable period of adjustment.

The Commission accepted density of traffic as an indicator of economic worth of branch lines. It assumed that railway lines on the average would break even with an annual traffic density of 100,000 net ton-miles per mile of track. It believes each railway operates about 4,300 miles of track below this density figure. Based on estimates presented by the railways, the Commission found that the maintenance of track on 8,600 miles of light density lines cost some \$13 million in 1958.

The Commission has recommended, therefore, under the administration of the Board of Transport Commissioners, that an annual grant of \$13 million be made available to provide compensation to the railways for losses actually incurred in the operation of lines which the railways are prepared to abandon, but which are to be continued for a period of time to be determined by the Board.

Statutory Grain Rates. The majority of the Commissioners satisfied themselves that the statutory grain rates impose a burden on the railways and, indirectly, on other shippers. The Commission has recommended, therefore, that this burden should in future be borne by Parliament, which sets the statutory rate.

The Commission believes the amount of remuneration to be paid to the railways in lieu of this burden should be based on two considerations: (1) It should ensure that there is no burden on other users of railway facilities; and (2) since transporting grain is a business in

which the railways should be encouraged to continue, the traffic should yield a return on investment.

In arriving at the level of remuneration, the Commission separated the costs associated with moving the grain — variable costs — from those which are associated with the plant upon which the traffic moves—constant costs.

The Commission has recommended that the Canadian Pacific be paid a sum of \$9 million and the Canadian National \$7.3 million, on behalf of export grain traffic, as a contribution to constant costs—these payments to be made annually without alteration for 5 years, and then they are to be reviewed.

The Commission has also recommended that, upon the annual submission of reports on the variable costs of moving grain and the revenues therefrom, the railways be granted an additional sum of money equal to the short fall of revenues on variable expense. The Commission calculated that such short fall in 1958 amounted to \$2 million for the CPR and \$4 million for the CNR. Coupled with this recommendation is one that, should the railways variable revenues from moving grain exceed variable costs, the grant in lieu of constant costs be reduced by the difference.

Statutory Free Transportation. The railways are required by statute to give certain persons, by virtue of the public office they hold, free transportation. The list is quite extensive. The Commission recommends the Government assume the cost of implementing this policy.

RESERVATIONS

Three of the six commissioners issued reservations to the report.

Commissioner Herbert Anscomb of Victoria issued the comment that, while interested parties in Western Canada insisted that under existing economic conditions western grain growers were unable to pay a greater proportion of their export freight charges than they now do, this condition should and must not be accepted as a fact for all time. He suggested that the situation should be constantly reviewed by Parliament, and, when conditions improve, grain rates should be increased to relieve the burden on the Canadian taxpayer. Commissioner A. H. Balch, Ottawa, concurred with his colleague on this reservation.

Commissioner A. R. Gobeil, Quebec City, registered his disagreement with the Commission's decision that a subsidy is required in order to compensate the railways for alleged deficits incurred in moving grain at statutory rates. He did so on these grounds: (a) The railways have not established that grain is deficit traffic. (b) If a deficit does exist it is attributable to low density lines rather than grain. (c) The contract of 1897 is still binding on both parties in a varied form. (d) Certain benefits of this Crow's Nest Agreement have accrued to the CPR which must be balanced against the obligations. (e) The Western Provinces were required to make certain concessions for which they are entitled to benefits of the Agreement as part of their historical and provincial rights.—L.H.



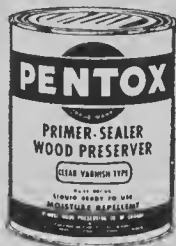
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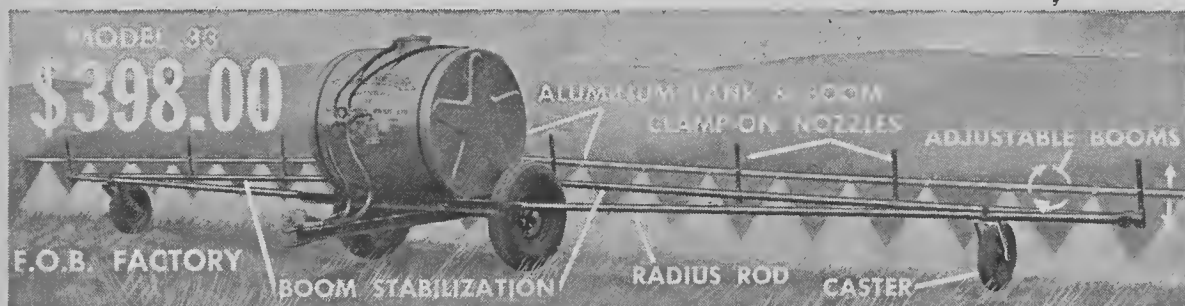


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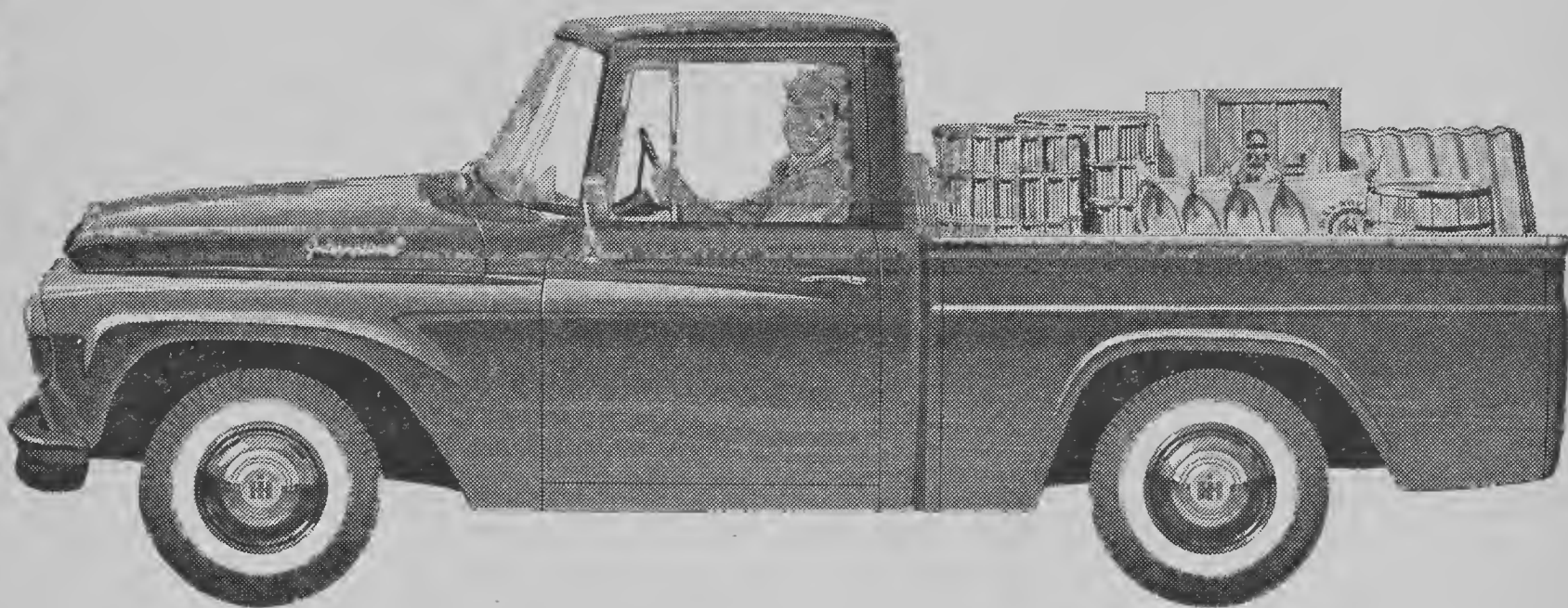
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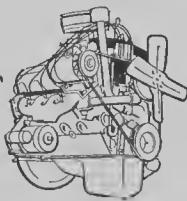
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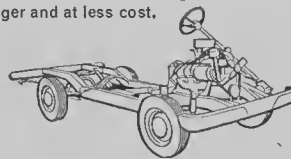
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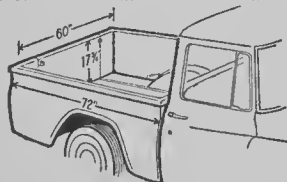
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The new International Compact is the last word in styling too! Twin headlights, crisp modern lines and attractive colour combinations make it a treat to see and drive.



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(Continued from page 75)

The National Farmers' Union, in its brief to the House of Commons Agriculture Committee, asked the Committee to take a good look at "overall effects of administered prices in the field of farm machinery."

The NFU said machine companies should reduce costs of their products and repair parts through manufacture of lower-priced farm equipment designed to meet the need of the average farmer, and by standardizing basic farm machinery parts.

The NFU urged the Committee

to closely examine the effects on farmers of "high credit costs on programs conducted by farm implement and finance companies in farm machinery sales."

The NFU opposed increased tariffs or similar protection for farm machinery companies and urged that present methods of valuation on imports of second-hand farm implements from the U.S.A. be discontinued.

The NFU said it believed that the conclusions of the 1937 House of Commons special committee, which

studied the same question, still hold true. At that time this committee concluded that:

✓ Machine companies had made substantial profits on their capital investment.

✓ There was "little effective competition" in pricing.

✓ Profits of farm machinery companies on replacement parts were "excessive" and that their prices should be "materially reduced."

✓ Retail prices of farm implements had been maintained at too high a level.

✓ Companies themselves should make every effort to reduce their costs to farmers.

✓ Farmers should be encouraged to organize for the co-operative distribution and servicing of farm implements. ✓

Letters

Could Double Cheese Use

In your February issue you carried the story "Dairy Farmers Want Emergency help."

I wonder, if they used a different approach in the making and selling of cheese, if output of this product couldn't be doubled.

European countries use far more cheese yearly than Canadians. In fact, they often eat it twice a day—for breakfast and supper as well. If Canadian cheese makers would come out with a 6 or 10 pound cheese package, their sales could well be doubled.

The price of cheese at wholesale is at about 32 cents. If the co-op stores handled the smaller cheese sizes, they could no doubt be sold for from 38 to 42 cents a pound. Many families would gladly buy these smaller cheese packages, instead of buying a pound at a time, and so save money and increase consumption as well.

This is only a suggestion, but I think one that is well worth trying.

D. VAN OS,
Fredericton Junction, N.B.

Perpetual Friends



... Our son Neil made this snow man and dog this past spring. We thought he made a pretty good job of them. He is 12 years old.

We get your paper and enjoy it.

MR. AND MRS. TED DENNIS,
Parkman, Sask.



Hi FOLKS:

Before you decide to go in for modern labor-saving devices be careful how you break the news to your family. A thing like that might start a chain reaction which will land you smack in the poorhouse.

Like the time a few years back when I switched over to loose-housing with a self-feeder.

"No more throwing down forkfuls of silage a couple of times a day," I beamed at Sara, "no more barn cleaning. There's no doubt about it, farming is getting easier and easier."

"Pretty soon you won't have to do anything but sit around and watch TV," she nodded.

I should've gauged the tone of her voice a bit better, but I was too pleased with myself to notice.

That night when I came in to dinner the table wasn't even set. Sara was reading a magazine in the kitchen.

"Dinner not ready?" I was real hungry from watching those cows tie into the silage in my new self-feeder.

She pointed to the sideboard and smiled sweetly. "It's all over there."

"Aren't you going to put it on the table?" I asked cautiously. Some sort of storm was brewing I could see, but I couldn't do anything about it until I knew what quarter it blew from.

"Just get a plate and help yourself," she said brightly, "knives and forks are in the drawer."

I looked from wife to kids in bewilderment.

"Like a self-feeder," my youngest said by way of explanation.

Getting things back to normal cost me a new range with an automatic timer. A man should remember an experience like that and learn from it.

The next crisis came when I proudly announced I'd been able to get a Farm Improvement loan to install a pipeline milker.

"It'll mean an end to hauling milk and scrubbing cans," I chortled. "To clean out my pipeline system all I'll have to do is push a button."

"Which reminds me," said Sara, "I could do with a new push-button automatic washer. It'll mean an end to dumping tubs of dirty water."

"Whatever happened to the good old-style housewife," I groaned, "who used to love to work for her family."

"She went to a psychiatrist and had her head examined," Sara told me.

As I said, when a man starts talking about labor-saving devices he should choose his words as carefully as a politician announcing a new tax increase.

Sincerely,
PETE WILLIAMS



NEW ROTARY TILLER

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